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ABSTRACT

Sessions during the four day meeting of the Rural Sociology Section explored 14 major areas of interest. Most of the papers presented are included in this document which serves as the proceedings of the 1979 annual meeting. The first session of the meeting was devoted to methodology; four papers were presented and three of them are included in the proceedings. Sessions 2 and 3 dealt with extension sociology and six of those papers are included. The fourth session featured three papers on the sociology of incendiarism; one paper is in the proceedings. Subsequent sessions and the number of papers included in the proceedings on each topic are: Session 5 - Rural Housing, 2 papers; Session 6 - Regional Perspectives in Rural Development, 4 papers; Session 7 - Rural Institutions, 1 paper; Session 8 - Community Satisfaction, 3 papers; and Session 9 - Issues in Agricultural Higher Education, 3 papers. Remaining sessions included such subjects as: Rural and Urban Culture, 2 papers; Status Attainment, 3 papers; Occupational Prestige, 2 papers; and Community, 3 papers. Proceedings of the final session, "Potpourri", include 4 papers dealing with (1) methodological problems in rural socioeconomic research; (2) the meaning of food in an Italian community; (3) values in a rural Italian community; and (4) a pilot study of morals and disaffection among poultry processing employees. Final sections of this document include minutes of the 1979 meeting, its program, and a list of participants. (DS)

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PROCEEDINGS

Rural Sociology Section

William C. Boykin President-Elect	Edward L. McLean President

Southern Association of Agricultural Scientists

Annual Meeting, New Orleans, Louisiana
February 4-7, 1979

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FOREWORD

This publication comprises the PROCEEDINGS of the 1979 annual meeting of the Rural Sociology Section, Southern Association of Agricultural Scientists, held in New Orleans, Louisiana, February 4-7, 1979.

Sessions included at the 1979 annual meeting are listed on the following page and coded by sections in this publication. Sections 1 through 14 comprise the papers submitted for these PROCEEDINGS. Minutes of the 1979 annual meeting are in Section 15. Authors provided copies of their papers for this publication but some presented papers were not submitted; a copy of the entire 1979 annual meeting program is presented in section 16. Readers can, of course, communicate directly with authors and other participants of the annual meeting. A list of all registrants is presented in section 17.

The officers of the Rural Sociology Section wish to express their appreciation to the authors, discussants, session chairpersons and all the social scientists participating in the 1979 annual meeting. The officers are particularly grateful to the administrators of Alcorn State University and Clemson University for resources to compile these PROCEEDINGS.

William C. Boykin
Edward L. McLean
June 1979

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1 Methodology
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Session 1

Methodology

"Research Design for Analysis of Change Over Time: A Review". Charles S. Perry, University of Kentucky.

"Measuring County Agricultural Structure". Ronald C. Wimberly and Michael J. Belyea, North Carolina State University.

"Distribution of Health Personnel and Population: A Case of Tennessee". Surendra P. Singh, Tennessee State University.

RESEARCH DESIGNS FOR ANALYSIS OF CHANGE OVER TIME: A REVIEW

by
Charles S. Perry
University of Kentucky

The increasing cost of survey research and a quickening interest in social indicators and macrosociology are leading some rural sociologists to secondary data analysis. In turn, analysis of secondary data has opened more possibilities of studying change over time. Rural sociologists have already performed an appreciable amount of research on change. Some, like Goldschmidt (1978) and many others, report cross-sectional analyses. Cross-sectional analyses relate independent and dependent variables observed for one time. Some, like Rogers et al. (1978) and Wheelock (1978), report first-difference analyses. First-difference analyses relate changes in independent and dependent variables between two times. Some, like Haller and Spenner (1977) and Grasmick and Grasmick (1978), report panel analyses. Panel analyses relate a dependent variable observed at a later time to independent variables observed at an earlier time. Cross-sectional, first-difference, and panel designs each are useful for studying change in selected situations which this paper reviews. The paper also reviews a fourth design, pooling data from several different times. The pooling design is appropriate in situations where none of the other three designs are appropriate.

Cross-sectional analyses

A cross-section of a single time observes a kind of change, namely change from case to case on different variables. This variation among cases is not temporal change, which is the change in variables from one time to another. Thus, cross-sections are appropriate for analysis of temporal change only when differences among cases at a single time resemble differences in variables over time. This "cross-sectional assumption" is very restrictive.

When reserachers want to study change over time, but have only cross-sectional data, they must assume that cross-sections do represent temporal change. For example, Goldschmidt (1978) found a strong positive correlation between the prevalence of corporate farming in states and the percent of the agricultural population in the lower class. He decided that the "implications of these data are that, with progressive expansion of large scale agriculture, the American rural population will develop into...(a) two-class system" (1978: 362). This implication makes sense on the assumption that changes in corporate farming over time have the same effect as differences in corporate farming at one time. But to test this assumption requires data from at least two times. Since a cross-section only has data from one time, such data are not available. Thus, cross-sectional designs cannot test the cross-sectional assumption.

There is no logical connection between cross-sectional relationships and change relationships. A hypothetical example might clarify this point. Sup-

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*The investigation reported in this paper (No. 79-14-34) is in connection with a project of the Kentucky Agricultural Experiment Station and is published with approval of the Director. Professors Bokemeier, Busch, Christenson, Coughenour, and O'Donnell made helpful comments on an earlier draft.

pose that at one time states A, B, and C have values of 10, 20, and 30 on corporate agriculture, and 10, 15, and 20 on percent rural population in the lower class. Here there is a positive relationship of corporate agriculture and percent lower class, and Goldschmidt (1978) would infer that as corporate agriculture increased over time, the percent lower class would also increase. At a second time, not studied by the cross-sectional researcher, states might have values of 20, 30, and 40 on corporate agriculture, and 5, 10, and 15 on percent rural lower class. Here as in the earlier time the two variables have a positive cross-sectional relationship. However, between the two times there was an increase in corporate agriculture and a decrease in the percent lower class. This is not at all what Goldschmidt would infer. Of course, it it also possible that the percent lower class might not change at all over time, so no relationship over time might coexist with a given cross-sectional relationship (Flanigan and Fogelman, 1971). Positive, negative, or no relationship over time can exist with positive, negative, or no relationship cross-sectionally. Researchers who connect cross-sectional data with a hypothesis of change over time rely on theory, and not on logic.

An insufficiency of cross-sectional analysis concerns timing. It may be that a cross-section accurately portrays the size and sign of a relationship among two variables, but does the independent variable exert its influence immediately or after some delay? Cross-sections cannot tell, because they pertain only to one time. In at least one area of research the issue is important. Haller and Spenner (1977) found that education and occupational status exert progressively stronger effects on workers' income until the workers reach age 45. Cross-sectional data cannot address subtle issues like changing relationships over time.

To sum up, cross-sectional relationships apply to issues of change over time, if differences among cases observed at one time resemble differences of variables over time. This cross-sectional assumption may be accurate, but there is no way to test it with cross-sectional data. Nor is there any logical connection between cross-sectional and temporal data. Researchers must rely on theory to justify interpreting cross-sectional findings in terms of change over time.

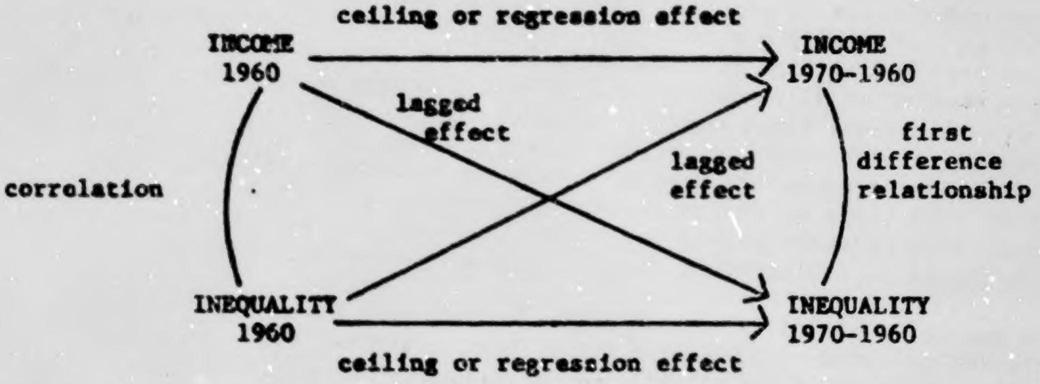
First difference analysis

Aware of the deficiencies of cross-sectional research, some authors have turned to analysis of first differences. For example, Rogers et al. (1978) related percent changes of income, industrialization, and inequality for 75 Iowa towns between 1960 and 1970. For another example, Wheelock (1978) related changes or percent changes in income, inequality, employment, racial composition, education, and other variables for 61 Alabama counties between 1960 and 1970. These studies typify first difference studies, in relating changes in variables between two times.[1]

First difference designs have a major advantage over cross-sectional designs, since they can actually study relationships over time and not just assume them. The finding of Rogers et al. (1978) that industrialization and income related positively in cross-sections of 1960 but negligibly over time underscores the importance of directly studying change. Nevertheless, there are two important qualifications on results from first differences.

One possible qualification is that relationships among change variables may reflect the influence of initial levels of those variables. Figure 1 describes this possibility. The figure shows a relationship between two percent change variables and initial levels of these variables. The variables are median income and the Gini coefficient of income inequality in 61 of Alabama's counties, as described by Wheelock (1978). Besides the relationship of changing income and changing inequality, which Wheelock posited, the figure contains five other relationships. Two of these link levels of variables to changes in them, and are "ceiling effects" or "regression effects." Two other relationships link levels of one variable to changes in the other, and are "lagged effects." The next paragraphs take up these possible relationships. The final relationship is a correlation between initial levels of the two variables, and needs no special discussion.

Figure 1. Possible Relationships Among Levels of Variables and Changes in Variables.



Both the ceiling effect and the regression effect refer to the tendency of changes in variables to associate with their initial levels. The ceiling effect exists because some variables are bounded. For example, the Gini coefficient of inequality ranges between 0.0 and 1.0. For such variables, larger increases are more possible where initial values are low, and larger decreases are more possible where initial values are high. This makes a negative association likely between levels of variables and changes in variables. Wheelock (1978:10) reports a correlation of -.35 between inequality and its change over time. The regression effect is the tendency of levels and changes of unbounded variables to relate, such as the correlation of -.83 between median income and its change.

Lagged effects exist when earlier levels of one variable associate with changes in another variable. For example, Wheelock (1978:10) reports correlations of .15 between median income in 1960 and changing inequality, and .77 between income inequality in 1960 and changing median income.

As to the other relationships in Figure 1, the correlation between median income and inequality in 1960 is -.59. The correlation between changing income and changing inequality is -.42. A first difference analysis focuses only on the latter figure, controlling none of the other relationships. Such results might be spurious because possible lagged effects, possible ceiling or regression effects, and the correlation of initial levels of change variables all underlie the correlation of changes in variables. The partial correlation of changing income and inequality controlling levels of income and inequality is -.45, only slightly different from the zero order correlation of -.42. Thus, in the example controlling levels of variables had no notable impact. Nevertheless researchers should be as alert to the possible biasing impact of levels of variables as they are to the possible biasing impact of control variables in any research situation. Perhaps they should be more alert to such possible bias, because data on the initial levels of variables will be readily available to test the possibility.

The second possible qualifications on first difference designs is measurement error. According to Rummel, the higher the correlation between levels of a variable at different times, the less reliable its change score may be (1970: 237). This is somewhat counterintuitive. It can be explained by recalling that—neglecting systematic error—an observed value of a variable at a given time has two parts. These are the true score and some random error. Random error may be positive or negative, from time to time and from case to case. Where the correlation of observed values at different times is very high, random error is necessarily a rather small proportion of observed values. However, the high correlation of observed values also implies that true scores are quite similar at different times. Creating change scores by subtracting values from different times may 'cancel out' much of the true scores. It would not cancel out random error, which would become a larger proportion of change in observed variables than of levels of observed variables. This heightened importance of random error might explain situations where changes in variables correlate markedly lower then levels of variables. Low correlations of change variables might just reflect decreased reliability.

To sum up, first difference designs improve upon cross-sectional designs by analyzing observed changes over time. However, first difference designs are appropriate only where initial levels of change variables exert neither ceiling nor regression nor lagged effects, and where measurement error is not influential. Since first difference designs are subject to these conditions, researchers might prefer to consider another design.

Panel Analysis

Panel designs as usually described (Heise, 1970) study the relationship of levels of a dependent variable at a later time to levels of independent variables at an earlier time. The independent variables may include an earlier measure of the dependent variable. For example, Willits et al. (1978) analyzed the "success" in life of migrants compared with nonmigrants from rural Pennsylvania. One measure of "success," the dependent variable, was occupational prestige. Father's occupational prestige was one of the independent variables, along with migration, education, and others. Interpreting the research by Willits et al. at the family level of analysis, it includes an earlier measure of the dependent variable. This is the occupational prestige of the family, represented in successive generations by father and child.

Panel designs differ from first difference designs in three apparent ways. First, designs study levels of variables, not changes in them. Second, panel designs control initial levels of independnet variables, and perhaps the dependent variable as well. Third, panel designs assume that the causal impact of independent variables is lagged, not contemporaneous as in first difference designs. The following discussion attempts to show that some of these differences are only apparent, and those that are real represent an improvement on first difference designs.

To begin with, other things being equal, it is better to analyze levels of variables than changes in variables. Changes in variables are likely to be less reliable than levels of variables, as described in the preceding section. Here panel designs improve on first difference designs.

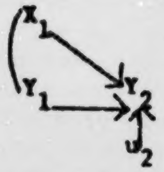
A second improvement over first difference designs is the control of initial levels of variables. At the very least, panel designs control possible lagged effects, and where panel designs lag the dependent variable, they also control ceiling and regression effects.

Panel designs do not necessarily improve on first difference designs in assuming that causal impacts are lagged, not contemporaneous. This is an empirical question. By assuming a lagged causal impact, panel designs are fairly restrictive, since the lag in causal impact must correspond to the lag between early and later times of observation (Davis, 1978). Researchers have circumvented this problem by studying different lag times. For example, Haller and Spenner (1977) analyzed the effects of education, occupation, and other variables on the incomes of workers of different ages. Since most workers finish education and start work in their youth, Haller and Spenner could reasonably assume that workers' ages represent lag between education and employment and current income.

Perhaps the most striking apparent difference between first difference and panel designs is that they address different research questions. Panel designs study influences on levels of variables, and first difference designs study influences on changes in variables. This difference between the two designs is in good part only apparent.

An outline of the components of panel analysis will help show how it can be extended to research questions studied by first differences. Figure 2 below portrays a two-time two-variable panel model, and is based on Heise (1970). In the figure the numeric subscripts indicate times, pointed arrows indicate relationships, and the curved arrow indicates a correlation of X (independent variable) and Y (dependent variable) at time one. Representing the error term, of measurement error and unobserved variables which influence the dependent variable, is u_2. The figure shows that Y_2 depends on Y_1 and X_1, meaning that both ceiling or regression effects and lagged effects are controlled. However, Y_2 does not depend on differences in X between two times, an independent variable in first difference designs.

Figure 2 Two-time, Two-variable Panel Design.



That the results of panel designs pertain both to levels and to changes in the dependent variable can be shown algebraically (Duncan and Hodge, 1963). The regression equation for a first difference design is:

$$(1)\ Y_2 - Y_1 = a_d + b(X_2 - X_1) + u_d.$$

In equation (1) a, b, and u represent respectively the intercept, unstandardized regression coefficient, and error term. Numeric subscripts represent times and the "d" subscript indicates a difference design.

The regression equation for a panel design is:

(2) $Y_2 = a_p + b_{yx}X_1 + b_{yy}Y_1 + u_2$.
The subscript "p" indicates a panel design, and the subscripts of the regression coefficients indicate which relationships they describe.

Subtracting Y_1 from each side of equation 2 yields:
(3) $Y_2 - Y_1 = a_p + b_{yx}X_1 + (b_{yy}-1)Y_1 + u_2$.
The dependent variable in equation (1), the first difference equation, is the same as in equation 3, a panel analysis equation.[2] Moreover, b_{yx} is the same in equations 2 and 3, implying that in a panel design the impact of X on levels of Y is the same as its impact on changes in Y. Thus, panel designs do pertain to changes over time. The two designs differ in what they assume causes change in Y. In a difference design, it is change in another variable, but in panel designs, it is earlier levels of Y and of the independent variables.

Although panel designs and first difference designs posit different causes of the dependent variable, even this difference may not be necessary. In some situations both earlier levels of variables and changes in them might influence a dependent variable. For example, Lenski (1966:314ff.) suggests that equality tends to increase with increases in income. Yet earlier levels of income might also influence equality, because it takes time for the distribution of income in a social system to respond to all the "multiplier effects" of a change in income. Researchers who suspect that their dependent variable responds both to changes in independent variables and earlier levels of those variables would relate Y_2 both to X_1 and changes in X between times.[3] This would merely include another independent variable in the analysis.

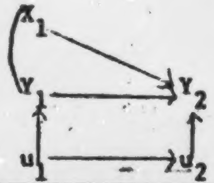
Including changes in independent variables in a panel design would subsume first difference designs. The modified panel design would contain changes in X. It would apply to changes in Y, as shown in equations (1-3). It would also control levels of X and Y to reduce the chance of spurious relationships. Here is a case of hybrid vigor in research designs: panel designs neglect the possible influence of contemporaneous change, and first difference designs neglect the possible influence on initial levels of variables and may accentuate error, but combining the two designs covers the flaws of each.

In short, panel designs can do almost everything first difference designs can do, and more besides. However, panel designs are susceptible to autocorrelation, the tendency for error terms to be related over time. It means that cases which have values on the dependent variable above those predicted by the independent variables at one time also tend to have high values at other times, and cases having values on the depependent variable below those predicted by the independent variables at one time tend to have low values at other times. For example, income equality in a county depends upon the mean income of the county (Foley, 1977), but it may also depend on factors like the county's political history, religious and racial background, proximity to large cities, and other unmeasured variables. The influence of these other variables on inequality is summarized in the error term, and to the extent that these variables are stable and their influence is stable, there will be autocorrelation.

Figure 3 illustrates the impact of autocorrelation. Like figure 2, figure 3 shows that the error term at the later time, u_2, influences Y_2. Following the assumptions of regression analysis, the figure shows no relationship of Y_1 or X_1 with u_2. However, it is also important to consider that an error term for the earlier time, noted u_1, influences Y_1, as shown in figure 3.

Autocorrelation exists if u_1 and u_2 are related. If error terms are related over time, then they act as common causes of observed variables. Thus, paths from u_1 to Y_1, u_1 to u_2, and u_2 to Y_2 bias the relationship of Y_1 and Y_2, and an additional path linking X_1 to Y_1 biases the relationship of X_1 and Y_2.

Figure 3. Two-time, Two-variable Panel Design With Errors for Both Times.



When might autocorrelation occur? Heise (1970:22) expects autocorrelation "in most real situations." For an example of autocorrelation, suppose (perhaps unrealistically) that people's religion influences their occupational prestige, but not their education, propensity to migrate, or other variables studied by Willits et al. (1978). With respect to that research, religion would be part of the error term, of variables unrelated to independent variables but influencing the independent variable. Religion also tends to be stable over time, so autocorrelation is part of the picture. It biases the relationship of occupational prestige over time. Respondent's religion would be correlated between early and later times (u_1 and u_2 in figure 3) and also correlated with prestige at each time (Y_1 and Y_2 in figure 3). Autocorrelation can influence other relationships. Suppose that prestige at an earlier time is related to other independent variables like education. Religion then could act as a common cause of the relationships between the independent variables and later prestige. It would relate to prestige at the later time, (u_2 and Y_2), and to the independent variables through prestige at the early time (u_1 relates to X_1 through Y_1). Thus, autocorrelation may influence results from panel designs regardless of any influence early values of the dependent variable exert on later values.

The preceding illustration is intended to illustrate possible implications of autocorrelation, not to criticize the research by Willits et al. (1978). Willits et al. have reported an interesting study of an important topic, and the hypothetical example of autocorrelation and religion is perhaps rather farfetched. Moreover, autocorrelation has no clear remedy.

Faced with the likelihood of autocorrelation, researchers have two choices. One is to refer to simulations which indicate that autocorrelation may not distort results greatly. The other is to gather more data and try to estimate the autocorrelation.

Methodologists interpret simulations of autocorrelation differently. Heise (1970) concluded that correlated error distorts the absolute magnitude of estimated relationships, but allows reasonable inferences as to the sign and relative magnitude of estimated relationships. He found that coefficients relating lagged dependent variables seemed more distorted than coefficients relating dependent variables to other independent variables. This is reasonable in light of figure 3 because the error terms affect lagged variables more directly than they affect other independent variables.

Heise's simulations suggest that panel analysis can be very useful. Social research has been more concerned with the existence of relationships than with the exact magnitude of coefficients. Thus, panel designs seem to provide most of the information social researchers want.

On the other hand, Hannan and Young conducted simulations that "cast doubt on many published panel studies which do not correct for autocorrelation" (1977: 80). Hannan and Young do not say whether their simulations cast doubt merely on the absolute magnitude of coefficients, as did Heise's, or whether even the relative magnitudes of panel coefficients are unreliable. At any rate, Hannan and Young went in search of ways to estimate autocorrelation and to correct for it.

In summation, panel designs improve upon first difference designs because they control ceiling or regression effects and lagged effects, and they are less susceptible to measurement error. Panel designs are restricted because the time-lag between early and later observations should equal the causal lag of independent variables, but flexible because their results also pertain to the concern of first difference designs, namely changes in the dependent variable. 'Hybrid' panel designs include the same independent variables as first difference designs, thereby subsuming first difference designs. Autocorrelation may bias results from panel designs, but to an uncertain extent.

Pooling designs

Hannan and Young (1977) suggest using panel analysis pooling data from three or more times to estimate autocorrelation. Pooling data from different times is rather uncommon in social research. Suppose a researcher was studying the effect of income on equality in 120 counties, in 1950, 1960, and 1970. A study such as Hannan and Young envision would have equality in 1970 as the dependent variable, with income in 1960 as the independent variable, and equality in 1960 as the dependent variable, with income in 1950 as the independent variable. The pool would contain 240 cases. A full description of the pooling design which Hannan and Young present is not feasible here, because the procedure is complex. This discussion concentrates on how pooling data can help measure and control for autocorrelation, and also mentions some assumptions intrinsic to pooling designs.

The pooling design that Hannan and Young propose closely resembles the analysis of covariance, so it will be useful to review this procedure (Kerlinger and Pedhazur, 1973; Ch. 10). The analysis of covariance investigates whether groups of cases differ as to the dependent variable after controlling the independent variable(s). A simple example would categorize communities as rural, suburban, or urban, and ask whether they differ as to income equality, controlling the independent variable level of income. The analysis of covariance uses dummy variables to represent different groups, and regresses the dependent variable on dummies and on independent variables. The regression coefficient of a given dummy variable indicates the difference between the mean average score on the dependent variable of that particular group and the mean average of another group, not represented by a dummy variable, which is arbitrarily chosen as a 'control.' These differences are net of the influence of the independent variables. In addition, comparing regression coefficients of different dummy variables can indicate relative differences among groups. (The choice of a 'control' group does not influence results, since the relative differences between groups remain the same no matter which group is the 'control.')

In the hypothetical analysis of covariance just outlined, coefficients of dummy variables for rural and suburban communities might be six and five, respectively. This would indicate that rural and urban communities differ by six on income inequality, urban and suburban communities differ by five, and rural and suburban communities by one, with all differences controlling income levels. Dummy variable coefficients of zero indicate no difference with the 'control' group, and equal coefficients indicate no difference between the respective groups. Thus, the analysis of covariance can indicate group differences as to the dependent variable, controlling other variables.

Autocorrelation closely resembles differences among groups as revealed by the analysis of covariance. If the analysis of covariance shows that groups have relatively high or low average values on the dependent variable net of other influences, it implies that some unmeasured group property causes these group differences. Similarly, in autocorrelation some unmeasured property causes individual cases to have values of the dependent variable over time consistently above or below those predicted by independent variables. The goal of both procedures is to estimate the effect of unmeasured properties.

Just as the analysis of covariance uses dummy variables to represent different groups, the pooled design uses dummy variables to represent individual cases. The procedure of regressing the dependent variable on independent variables and dummies is the same in the analysis of pooled data.[5] The coefficients of the pooled dummy variables indicate the extent that each case has relatively high or low values on the dependent variable over time, net of the independent variables. The existence of error terms for individual cases which have consistently high or low values over time is autocorrelation. Since the pooled dummy variables make it possible to show whether cases have relatively high or low values, they control autocorrelation.

The preceding greatly abbreviates the description of the pooled design. Hannan and Young (1977) actually suggest two designs based on analysis of dummy variables. They also report simulations indicating that correcting for autocorrelation does markedly improve estimates of coefficients. This suggests that pooling designs can make a real contribution to understanding how variables relate over time.

Hannan and Young (1977) also note that the pooled design relies on several assumptions. The most important of these is that relationships of observed variables are stable over time. If relationships change over time, the single coefficient relating an independent to a dependent variable in a pool of all times would inaccurately represent the relationship at each time. Thus, researchers should compare analyses of data for each lag period to see whether relationships change.

Another assumption is that autocorrelation is constant over time (Hannan and Young, 1977:60). Autocorrelation measured by the design described here represents an ongoing influence of unmeasured factors on different cases. Other kinds of autocorrelation are possible. For example, the impact of unmeasured variables might change cyclically, such that cases with relatively positive error terms at one time had relatively negative error terms at another time, and vice-versa. This kind of autocorrelation would be invisible to the design outlined here. Although Hannan and Young argue that in most macrosociological situations it is valid to assume constant autocorrelation, researchers should consider whether their dependent variable is subject to unmeasured influences which change during the time of observation.

In addition, all the assumptions usual in statistical analysis hold, including recursivity, homoscedasticity, linearity, and so forth. Pooling data does

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not remove all assumptions, but converts issues which are matters of assumption in other designs to matters of empirical observation.

To sum up, pooling data may allow statistical control of autocorrelation, provided that both autocorrelation and relationships among observed variables are constant. Thus, analysis of pooled data can check a questionable assumption of panel analysis, namely that autocorrelation does not distort results. This makes analysis of pooled data desirable.

Conclusion

This paper has reviewed four research designs in light of their usefulness for studying change: cross-sectional analysis of one time; first difference and panel analysis of two times; and pooling analysis of three or more times. Cross-sectional analysis is clearly less preferable, though it is least complicated and demands the least data. First difference and panel designs each use data from two times. However, first difference designs are susceptible to measurement error and assume that initial levels of variables are unrelated to changes in variables, flaws not found in panel designs. Only the pooling design estimates autocorrelation, so where possible researchers probably would be wise to use a pooling design.[6] Researchers with data from two times probably would be wise to use a panel design. Researchers with data from one time must use a cross-sectional design, and acknowledge that further research is needed.

FOOTNOTES

[1] Strictly speaking, first difference analyses pertain to simple changes in variables, not percent changes (Wonnacott and Wonnacott, 1971:140). However, a percent change is just a simple change divided by the earlier level of a variable, and multiplied by 100. The comments in this section apply to simple or to percent change.

[2] Note that this does not apply to the analysis of percent change discussed in the previous section of this paper.

[3] Heise (1970:11) stresses the importance of a lag to panel designs. Including change variables among the independent variables in a panel design contradicts the assumption that relationships are lagged, but as noted, theory may call for this. However, Fuguitt and Lieberson (1974) warn that differences in variables and levels of variables are related. That is, methodologically ceiling and regression effects also apply to independent variables. Thus, researchers must weigh the possible costs of spurious relationships against the possible benefits of analyzing both lagged and contemporaneous effects. No general answer to this problem seems possible.

[4] Autocorrelation may also play a role in first difference designs. It is likely that some variables in the error term for levels of a variable are also in the error term for change in that variable, given the link between level and change of a variable. If the two error terms are related, then first differences will reflect autocorrelation.

[5] The hypothetical pooled analysis referred to above would have 119 dummy variables, but it is unnecessary to regress the dependent variable on independent variables and dummies. Hannan and Young (1977) sketch a shortcut to compute coefficients for dummy variables, for which they cite an unfortunately obscure source. Apparently the procedure is this:
(1) Estimate the regression coefficients of the independent variables. Do this by converting values of independent and dependent variables at different times to deviations from each unit's mean, and regressing the transformed variables. The regression coefficients equal those that a regression of untransformed

variables and dummy variables would yield.
(2) Estimate regression coefficients of pooled dummy variables. Do this by arbitrarily selecting one case as a 'control' (analogous to the control group in analysis of covariance). For each other case, the coefficient (u) equals:

$$u_i = (\bar{Y}_i - \bar{Y}_c) - B(\bar{X}_i - \bar{X}_c)$$

where
i is subscript of each case (except 'control'), c is subscript for 'control' case, $\bar{Y}$ is mean of dependent variable at different times for subscripted case, $\bar{X}$ is mean of independent variable(s) at different times for subscripted case, B is regression coefficient for independent variable(s).
(3) Estimate the autocorrelation, p.
(a) Compute the variance of residuals from regression equations of dependent, independent, and dummy variables, for all observations in the pool. (The hypothetical pooled analysis would have 240 residuals.) Call this variance, V.
(b) Compute the variance of the u_i. Call this variance U.
(c) Autocorrelation is estimated as $p = U/(U + V)$.

Hannan and Young (1977) suggest re-estimating the regression equation by modified generalized least squares. Interested readers should consult their article.

[6] A pooling design is possible using data from two times. Such a design would pool two cross-sections and could estimate autocorrelation, but at the cost of ignoring possible lagged relationships.

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MEASURING COUNTY AGRICULTURAL STRUCTURE[1]

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ABSTRACT

Three factored dimensions of county agricultural structure emerge from partial correlations among 18 indicators on North Carolina farms as reported in county agricultural census data. These are partner owned and tenant operated farming, large-scale farming, and labor resources. To these three is added a fourth dimension suggested in zero-order correlations among the structural indicators and which was used as the control variable in the partial correlations. This is number of farms per county. Such dimensions may be useful when considering the social implications of agricultural policy administered through counties. They may also provide a basis for further scientific inquiry of the causes and consequences of social structural differentiation in agriculture.

ISSUES IN AGRICULTURAL STRUCTURE

Questions continue to be raised about the (1) nature of agricultural structure; (2) what influences it; (3) how it may effect personal commitments to farming, the well-being of those who farm, and agricultural productivity; and (4) the structure of society in general.

The sociological approach to these questions involves the study of social organization, social change, and social psychology. Within social organization there is concern for the system of macro social relationships among the collective units directly engaged in agricultural activity and the complex organizational features of such units. These organizational variables often have been examined by sociologists but

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rarely in regard to agriculture. Within the study of social change there are concerns for the process of social relationships that alter macro and micro organizational networks and their accompanying sets of institutions, roles, and norms. The sociology of social change in agriculture also involves the study of innovation and diffusion. Recently, this has come to be known by many scientists as technology transfer. Nevertheless, it has a broad base in sociological research. Social psychologically, there is concern for the situation of the individual farm operator or family members who hold some degree of commitment strength to agricultural careers and whose well-being depends largely upon what happens in macro organization and change of agricultural systems over which they have little control.

This study will focus upon the social differentiation of agricultural structure at the county level. This is the level at which much of the agricultural policy is transmitted to farms through county programs and personnel. It should be kept in mind that implications of this analysis do not necessarily apply to particular farm units but only to the county composition of farms. This inquiry generally parallels a similar measurement of earlier data on structural differentiation in county agriculture (Wimberley and Belyea, 1978). Causes and consequences of changes in agricultural structure are reserved for future investigation.

PROCEDURES

Data and sampling. The information to be analyzed here are from the 1974 U. S. Census of Agriculture (1978). The 100 counties of North Carolina provide the units of analysis. One county, however, contains so few farms that the county itself is not reported for census disclosure reasons. The remaining 99 counties are the same that were used in the prior wave of data from the 1969 Census of Agriculture. Since the census contained few indicators of social structure for farms having less than $2,500 of annual agricultural sales, only the county data on farms with $2,500 or more in sales will be used.

Structural indicators. Rather than doing a direct replication of the earlier analysis, this effort expands the number of indicators to be examined. Previously, only 11 indicators of structural differentiation in county agriculture were analyzed; here, this number has been increased to 18. These 18 variables in the 1974 census may be according to six categories.

First, there is the scale of the farm units in a county. Indicators of scale are (a) mean farm size in acres and (b) mean dollar value of farms. Although many studies would use these two indicators alone, it is assumed in this research that agricultural structure involves more than acres and dollars.

Second is ownership. Indicators are (c) individual or family ownership, (d) partnership owned, and (e) corporate ownership.

Third is type of farm operator. Here, there are indicators of (f) full-owner operator, (g) part-owner operator, and (h) tenant operator.

Fourth is a set of operator characteristics. These are (i) whether the operator resides on the farm, (j) whether farming is the operator's principal occupation, (k) whether the operator's off-farm income is greater than that from the value of agricultural products sold, and (l) the number of farms in each county where the operator has farm debts.

Fifth is a category of indicators pertaining to labor resources used on farms. These measures include (m) the number of farms with hired labor, (n) the number of farms using contract labor, (o) and the number of hired farm laborers in a county.

Sixth is machinery resources. Mechanization is shown by variables of (p) the market value of farm machinery and equipment in a county, (q) the number of trucks used on farms, and (r) the number of tractors used on farms.

The categories on scale of farm operations and operator characteristics have been added for this analysis of the 1974 data. In addition, a new variable used in the category of labor resources is the number of hired laborers in a county.

Measurement techniques. As before, indicators are to be tested for dimensionality by principal axis factoring with oblique, promax rotations.

FINDINGS

Zero-order Pearsonian correlations among the indicators other than average size and value of farms in the counties fell predominately within the .8 to .9 range. Size and value correlated .82 and tended to relate to most other variables in the -.1 to -.3 range. Only corporate ownership had a positive, though small, relationship with size and value.

Due to these tendencies, it was not surprising to find a two-factor solution for the matrix of zero-order correlations. Even in the unrotated factor pattern, one factor could be defined by size and value while the other consisted of the remaining 16 variables.

The reason for this two-factor split among the indicators is attributable to a spurious relationship of the 16 variables on the second factor with the number of farms per county. For instance, if a county had a large number of farms, its number of full-owner operators was also likely to be high along with the numerical values for other variables except mean acreage and value of all the farms in the county. Therefore, the number of farms in a county must be acknowledged as a characteristic of county agricultural structure. Previously, this interpretation was discussed in regard to the 1969 data. And as before, it is suspected that once such spuriousness is removed, further dimensions might become apparent.

How can this spuriousness be removed? Several approaches to this problem were evaluated in the 1969 data analysis. A pair of techniques involved the use of the number of farms per county as a numerator for the values of the other indicators and as a denominator for the values. As a numerator, the number of farms per county transformed the variables into ratios; as a denominator, the variables were transformed into proportions and means. A third technique was judged to eliminate more of the spuriousness and was found to produce a cleaner, simple structure solution for the promax rotated factors. This favored approach was to factor partial correlations of the 18 variables using number of farms per county as the control variable.

In the matrix of partial correlations, the relationship between size and value dropped to .75. However, the partial relationships of either size or value with the remaining variables produced mostly positive coefficients which tended to be around .3 to .4 or higher. Partials among the other 16 variables displayed more negative values than the zero-order coefficients and, because the effects of number of farms had been controlled, the partial coefficients were substantially lower. This was anticipated and needed in order for other structural dimensions to be revealed.

The principal axis factoring of the partial correlation matrix gave evidence that at least three factors would be required to account for their common variance. Since there was also some evidence of a fourth factor, both three and four factor solutions were promax rotated to see which was most interpretable. The fourth rotated factor was distinguished by the absence of both part-owner operators and individual/family owners and by the contradictory presence of part-ownership and full-owner operators. Due to the ambiguousness of these loadings the three factor solution was favored.

The promax rotated loadings of the three factors are given in Table 1. The first factor represents a dimension of partner owned farms operated by tenants whose principal occupation is farming but who reside off the farm, who have more on- than off-farm income, and who tend to be free of farm debt. On the other hand, farms owned by individuals or families and operated by such full-owners are conspicuously missing from this configuration. This dimension may be named as partner owned and tenant operated farming.

Factor two is a dimension of large-scale farm operations owned by corporations or partners. These farms have machine and equipment resources, hired laborers, and a tendency toward non-resident operators. This dimension is termed as large-scale farming.

The third dimension is labor resources. Here, hired and contract labor are found along with operator indebtedness. Secondary features in this dimension are smaller acreages with trucks but not full-owner operators. Despite the use of labor resources and the existence of

Table 1. Promax Rotated Factors of 1974 County Agricultural Structure*

	18 Indicators	I. Partner Owned and Tenant Operated	II. Large-Scale Farming	III. Labor Resources
Scale	a. Acreage		.92	-.31
	b. Value		.83	
Ownership	c. Individual/Family	-.93		
	d. Partnership	.96	.37	
	e. Corporate		.48	
Operator	f. Full-owner	-.63		-.30
	g. Part-owner			
	h. Tenant	.80		
Operator Characteristics	i. Resident	-.65	-.30	.32
	j. Principal job	.71		
	k. > off-farm income	-.27		
	l. In debt	-.46		.54
Labor Resources	m. Farms with hired labor		.40	.47
	n. Farms with contract labor			.61
	o. No. of hired laborers			.58
Mechanization	p. Machinery value		.85	
	q. No. of trucks		.67	.44
	r. No. of tractors		.55	

*Except for off-farm sales, only loadings ≥ ± .30 are reported.

farm debts, no particular ownership pattern is associated with this dimension. There is, however, a slight connection with tenancy and part-owner operations.

Correlations of the partner ownership/tenant operation factor with the large-scale farming and labor resources factors are .43 and .35 respectively. The latter pair have a correlation of .45. Therefore, the oblique relationships of these dimensions are positive and somewhat moderate. This suggests that there is a slight tendency for a county that scores at a given level on one dimension to score similarly on the other dimensions as well. However, there should be appreciable variation to this pattern. Also, it is emphasized that these dimensions are analytically distinct.

In summary, three factored dimensions of county agricultural structure emerge from the partial correlations among 18 indicators of structure for North Carolina farms having sales of $2,500 or more. These are partner owned and tenant operated farming, large-scale farming, and labor resources. To these three should be added a fourth which came from the zero-order correlations of the indicators and which became the control variable for the partial correlations. This is number of farms per county.

CONCLUSIONS

No causal relationships are posited for this four-dimensional picture of structural differentiation in agriculture. Nor is any developmental sequence of structural change assumed on the basis of the findings at hand. And since more variables have been used in this analysis of the 1974 data than were examined from the 1969 data, direct factor comparisons would be risky.

Rather, the purpose of this analysis has been to assess the dimensionality of a set of indicators for agricultural structure at the county level. The indicators are available from census data and are a convenient source of information for agricultural policy makers, administrators, and practicioners. The four dimensions of these indicators are suggested as an aid for shaping loosely construed impressions of county agricultural structure into more systematic, empirically based, perspectives.

Several research steps are possible from this beginning. One further measurement step would be to re-examine the measures in terms of developmental processes. The structural differentiation of agriculture does not just happen. No doubt, certain of its features emerge prior to others. These developmental sequences should be determined so that future differentiation, or its reversal, could be anticipated.

Two other research steps are analytic rather than measurement oriented. One would be to look at the social and other types of influences which may set structural changes in motion. A complimentary step would be to examine the changes in individual career commitment and well-being of farmers that result from variations in agricultural structure. One's social context is conceptualized by social psychologists to have a bearing upon the alternatives a person experiences throughout life. The same should be the case farmers faced by changing agricultural situations. In addition to the consequences of agricultural structure on individuals, there are undoubtedly effects on the structure of other social arrangements including the economic, political, educational, religious, and family institutions as well as community and social structure in general.

Contemporary sociologists have been slow to take these research steps. Once they are made, it might be possible to shape agricultural policy so that it will better correspond to its social as well as its physical environment.

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DISTRIBUTION OF HEALTH PERSONNEL AND POPULATION: A CASE OF TENNESSEE

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DISTRIBUTION OF HEALTH PERSONNEL AND POPULATION: A CASE OF TENNESSEE

Introduction

At the present time, the majority of observers agree, health care in the U. S. is experiencing a crisis. Some underlying problems that have been identified by observers include (1) a shortage of physicians and other health personnel, (2) differential accessibility to health services, (3) differential availability of health services for various segments of the population, (4) lack of coordination among the agencies that provide health care services, and (5) an inadequate health insurance scheme. The first three problems relate directly, or indirectly, to spatial distribution of medical care in the United States and concern both health facilities and manpower. Therefore, the distribution of physicians, dentists, nurses, hospitals, and other paramedical personnel is important in any solution to the complex health care problem.

There is a pressing need for accurate documentation of data to better organize all public health programs, including planning and evaluation. The analysis presented here would help increase the ability of state and local officials, and members of health councils to analyze and make effective decisions regarding local health problems and solutions. The specific objectives are to (1) determine the overall distribution of major categories of health personnel, using Tennessee as an example; (2) use some practical numerical criteria with which "relative adequacy" of health personnel supply, in a state or county, may be determined and identify "unfavorable" counties in terms of their supply of health personnel; (3) determine how various health professions are geographically correlated with one another and their relationship to the number of hospital beds.

A lengthy discussion of all health resources is beyond the scope of this paper. Therefore, major focus is placed on the distribution of physicians and three other health resources. This is appropriate since, under present circumstances, the physician constitutes the first formal link between the community and the health service system, and is responsible for supervising the efforts of other workers as well. The maldistribution of physicians becomes significantly acute when we realize that we are not dealing only with maldistributions of a health resource, but with a resource in apparent short supply. Other health resources analyzed in this paper are dentists, registered nurses, pharmacists, as well as hospital beds.

Rural--Urban Distributions of Physicians and Other Health Personnel

A number of health problems may be treated at the early stages if diagnosed and attended by physicians. The presence of physicians in the immediate area, therefore, provide some estimates of the scope of preventive treatment, costs of health care, and stability relative to health care.

In December, 1975, Tennessee was ranked 28th among all of the United States in supply of non-federal physician (patient care) population ratio. There were a total of 4,703 non-federal physicians[1] in patient-care, producing a ratio of one physician for every 890 persons, or 113 physicians per 100,000 population in Tennessee. This is compared to an average of one physician for every 593 persons, or 169 physicians per 100,000 population in the United States in the same year. Table I provides the numbers and rate of physicians,[2] dentists, registered nurses,[3] and pharmacists in the U. S. and in Tennessee.[4] Table I also gives the percentage of the population[5] residing in metropolitan and non-metropolitan counties of the state and the rate for selected health categories. Out of a total of 4,703 physicians in the state, 3,488 (74 percent) were practicing in 5 major metropolitan counties (Davidson, Hamilton, Knox, Shelby, and Sullivan), where only 45 percent of the state's population resides. The remaining 1,215 (26 percent) physicians were practicing in the rest of the 90 counties of the state, where 55 percent of the population resides. The rate (persons per physicians) for non-metropolitan counties was 1,890, more than three times the rate (542) for metropolitan counties in the state. Therefore, the majority of the physicians are located in metropolitan counties where a smaller percentage of the population resides.

More striking and revealing than the state and regional averages are data on variation in the same indicator among different counties of the state, as well as within metropolitan and non-metropolitan counties. The rate, person per physician, varied from a low of 427 in Davidson County, followed by 537 in Shelby County, and 617 in Knox County; all of them major metropolitan counties of the state. Thus, there were two counties in the state having much better rates (person per physician than the nation's average. However, at the same time there were three counties, Meigs, with a population of 6,005, Morgan, with a 14,431 population, and Union, with a 10,176 population, without any physician in the county. In addition, the rate per physician was as high as 8,113 in Stewart County, followed by 8,027 persons per physician in Cheatham County. All of these counties are highly rural in nature. Table I also provides similar data for dentists, registered nurses, and pharmacists. The corresponding rates for dentists, registered nurses, and pharmacists for Tennessee compare better with the nation's average than does the rate for physicians. However, the distribution of these resources, between metropolitan and non-metropolitan, is not much different than in the case of physicians. Sixty-three percent of all of the dentists, and 69 and 53 percent of all of the registered nurses and pharmacists, respectively, were located in five metropolitan counties of the state, producing a rather favorable rate per person. However, as indicated in Table I, the picture is completely opposite for non-metropolitan counties of the state. This clearly points out the disparity in the distribution of doctors, dentists, registered nurses, and pharmacists in the metropolitan and non-metropolitan areas. However, the gap between the two is even wider and sometimes shocking if one considers the availability of specialists and intensive care services in the two areas. For example, in 1975, out of a total of 296 obstetricians and gynecologists, 225 were located in four major metropolitan counties of the state. Similar distributions were found in the case of pediatricians, internal medicine, gynecologists and opthalmologists as 75 to 80 percent of them were located in four major metropolitan counties. Thus, the distribution of specialists is even more biased toward metropolitan counties.

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[1] In this paper data for non-federal physicians in patient care is analyzed. The majority of the federal physicians are not in patient care. Also, some non-federal physicians are in administration, teaching, and research, etc., and therefore, not included in the analysis. Only physicians in patient care are directly involved in providing health care services and, therefore, their presence or absence will have bearing on the amount of services available.

[2] Data for physicians in this paper is taken from, Distribution of Physicians in the United States, 1975, Volume 1, Regional, State, County; American Medical Association, Chicago, 1973.

[3] Data for dentists and registered nurses were provided by Tennessee Department of Public Health, State Center for Health Statistics, Cordell Hull Building, Nashville, Tennessee (May, 1975).

[4] Data for pharmacists were taken from a publication, "Registered Pharmacists in Tennessee, 1973" by HEW, Health Resource Adminstration, 1974.

[5] Population data for 1975 were provided by the State Planning Office, Nashville, Tennessee.

The above data sources were used throughout the paper.

In order to further analyze and determine the extent of maldistribution in rural areas, all of the 95 counties of the state were divided into five groups.[6] The highest number of counties (35) was in the semirural group, followed by 30 in adjacent counties with 25,000 to 49,999 inhabitants. To estimate the extent of health care provided in a population, population to personnel ratios were computed for each professional category for state and for count groups. The results of this analysis are presented in Tables II and III.

The population to physician ratio for Tennessee follows much the same pattern, in the distribution of physicians between rural and urban areas, as for the rest of the United States. Six of Tennessee's 95 counties had physician population ratio's better than the state's average of 890 persons per physician; which means that a few counties are relatively well situated, while many are not.

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[6] These groups are (1) rural---counties with 0 to 9,999 inhabitants, (2) semirural---counties with 10,000 to 24,999 inhabitants, (3) adjacent---counties with 25,000 to 49,999 inhabitants, (4) lesser metropolitan---counties with 50,000 to 99,999 inhabitants, and (5) metropolitan---counties with 100,000 or more inhabitants.

Davidson and Shelby Counties, with 427 and 537 persons to physician ratios, respectively, are in an advantageous position. Out of these six counties five are in the last group, i.e. with inhabitants of 100,000 or more, and one is in the group with 50,000 to 99,999 inhabitants. Ranges of population/personnel ration for counties with health personnel are given in Table II. The highest ratio for highest/lowest range was found in the case of registered nurses, and was lowest for pharmacists. These ranges give an indication of the variation of the number of people served by one professional person from county to county. The average number of people served by one professional person varied exceedingly from one county to another, indicating uneven distribution of such personnel. For example, population to registered nurse ratios varied from the most favorable, 177, to the most unfavorable, 4,135, a more than twenty-three-fold difference. The distribution of pharmacists was a more than five-fold difference. Also, in a number of counties, certain professional categories were completely non-existent (Table II).

The data in Table III indicate that, in general, the average population per personnel ratio decreases as the size (population) of the counties increases. The lowest average population per personnel ratios were in the metropolitan counties and highest (least favorable) in rural counties. This, again, suggests that health personnel shortage exists more in counties with smaller populations. The table also suggests that there is not only a shortage of health personnel, but their distribution is skewed, favoring more populated counties.

Unfavorable Population to Personnel Ratio

There is no clear-cut answer for the question---Just how many health personnel are necessary for good quality medical care? However, there have been a few studies (1, 5, 6, 7, 8) suggesting the approximate number of physicians for a population. These estimates, in the case of physicians, vary from 606 persons per physician to as high as 2,000 persons per physician. The wide variation in estimates reflects the complexity of the problem in suggesting a population health personnel ratio. The ratio would be different for different populations or regions as the health needs would vary depending on the socio-economic composition, motivation, and awareness of health needs.

In a study, Schonfeld, et.al., suggests that, for good quality, primary medical care, a ratio of, approximately 752 persons per physician should exist.[7] The Kaiser Permanents Organizations found that approximately one physician for 1,000 population is sufficient to provide comprehensive care. However, in rural areas, where concern is mainly with primary care, and specialty problems are referred to physicians in urban areas, the ratio could be one physician to 2,000 persons.[8] In a recent study in Pennsylvania, Tokuhata, et. al., used the criteria of one physician to 1,500 persons to judge unfavorable supply of physicians.[9] The federal government also uses the same criteria in some of its health programs.

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[7] Schonfeld, H. K., et.al., "Numbers of Physicians Required for Primary Medical Care," New England Journal of Medicine, Vol. 286, March 16, 1972; pp. 571-576.

In this paper a set of arbitrary criteria was developed. The criteria only defines, in relative terms, what may be considered "unfavorable" supply of health care personnel in relation to the size of the population to be served. At present, there are no such empirically proven or accepted standards for any category of health professions. Here, an attempt is made to employ some practical judgements and orientation in deciding these criteria. Suggested estimates from past studies were taken into consideration when formulating these criteria. Also, the actual patterns of population to personnel ratio in Tennessee were observed and the fact that training of health personnel is both costly and time consuming was also taken into consideration. As summarized in Table IV, two criteria, 1,500 and 2,000, were considered to determine "unfavorable" and "favorable" population to physician ratios in Tennessee counties. Two criteria were selected because of the importance of physicians in health care and the wake variation among counties. These two criteria, along with the state average, seem to provide three realistic and practical standards for physicians in the state. The criteria for dentists, registered nurses, and pharmacists, respectively, are 3,000, 200, and 3,000. Along with these criteria, the state average for each health category was also used as a standard.

By using these criteria, and county groupings, some interesting patterns emerged in the distribution of health personnel in Tennessee. The results of this analysis are summarized in Table V. Based on the state average, of 95 counties in the state, only eight may be considered as having a "favorable" supply of physicians. Using the 1,500 criteria, only 17 counties were determined as having a "favorable" supply of physicians. According to the last criteria, (2,000), 24 counties were classified as "favorable" in supply of physicians. Therefore, even with this liberal criteria of 2,000 persons per physician, 64 counties, or 67 percent, of the total counties may be considered "unfavorable" in their supply of physicians. Table V also presents percentage of counties in each county group. In 92 percent of the counties, population to physician ratio was less than the state's average, and according to the first criteria, 82 percent of the counties were having an "unfavorable" supply of physicians.

Eighty-seven counties had "unfavorable" supplies of registered nurses, based on the state's average. However, according to the criteria used, 91, or 96 percent, of the counties had short supply of registered nurses. According to the criteria used, 74 of the Tennessee counties were unfavorably supplied with dentists and 28 counties were unfavorably supplied with pharmacists. Therefore, it may be concluded, from Table V, that the state's averages are much more favorable than they are for most of the counties in the state, suggesting maldistribution of health personnel among counties. Among the health professionals studied here, the supply of pharmacists was found to be the most favorable and best distributed.

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[8] Lynn, Thomas, "Rural Health Care," Oklahoma Current Farm Economics, Vol. 44, No. 4, December 1971; pp. 6

[9] Tokuhata, G. K., et. al., "Health Manpower Distribution in Pennsylvania," American Journal of Public Health, Vol. 65, No. 8, 1975.

The data in Table V also indicate interesting characteristics: (1) in general, the percentage of counties with an "unfavorable" supply of health personnel decreased as the size of the county population increased, suggesting that health personnel shortage exists more commonly in counties with a smaller population, (2) in counties with a population of less than 25,000, short supply of health personnel was indicated in all categories of the professions; in fact, in almost 100 percent of such small counties, the supply of physicians, dentists, and registered nurses was "unfavorable."

To assess the degree to which any two of the four selected health personnel categories and the number of hospital beds may be related geographically, a 5 by 5 correlation matrix was developed. In Table VI the correlation matrix is presented. As can be seen, not all of the health personnel categories are highly correlated with one another. The results indicate that physicians tend to aggregate with registered nurses, pharmacists, and hospital beds. However, not all of the four selected categories tend to aggregate in the same geographic locations in Tennessee for practice of their professions. Also, they do not tend to be located where hospital beds are located.

It is not suggested here that availability of health personnel alone will not help solve the problem of health care in rural areas. However, the availability of health personnel is crucial in affecti[illegible] quantity of health services supplied to an area. Focusing only on avail[illegible] of health personnel can be misleading for at least three reasons.[10] Fir[illegible]esource availability does not tell us how efficiently or productively these re[illegible]rces are being used. Second, resource availability does not give any ind[illegible]ation of the quality of the resources. Third, resource availability does not deal with the accessibility of the resource. Also, health care markets (supply) are more sensitive to economic demand factors than to medically determined needs, or health needs in general. The analysis presented in this paper, does seem to agree with this.

Conclusion

The analysis of the data in Tennessee indicates that, primarily, the problem of the supply of health personnel is more that of maldistribution than that of shortage of health personnel. Out of four categories of health personnel studied, three (physicians, dentists, and registered nurses) were found to be very unevenly distributed in relation to the size of local population. More professionals are concentrated in, or near, large populations or metropolitan areas where more, and larger, hospitals and other intensive care facilities are available.

A set of arbitrary criteria was developed to determine "favorable" and "unfavorable" counties in terms of supply of selected health personnel categories. It should be recognized here that these numerical criteria are not to be regarded as a definite set of standards, or empirically proven indicators, of real needs for more health personnel. It should also be recognized that, in addition to the supply of needed health care personnel, there are many other factors which also influence the health status of a population, e.g., extent of consumer utilization, motivation, and knowledge of health problems and methods of health care delivery. It was also determined that, in Tennesse, not all of the four selected categories of health professions--physicians, dentists, registered nurses, and pharmacists, tend to aggregate in the same geographic locations for practice of their professions. Also, they do not tend to be located where hospital beds are available.

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Table I The Number and Rate[1] of Physicians, Dentists, Registered Nurses, and Pharmacists, 1975.

	Percentage of State's Population 1975	Number of Physicians Active[2] December 1975			Number of Dentists Active May 1975		
		Total	Percent	Rate	Total	Percent	Rate
United States		285,345	100.00	593	97,970	100.00	2,128
Tennessee	100.00	4703	100.00	890	1,766	100.00	2,371
Metropolitan Counties	45.00	3,488	74.00	542	1,111	63.00	1,702
Non-Metropolitan Counties	55.00	1,215	26.00	1,890	655	37.00	3,506

		Number of Registered Nurses Active May 1975			Number of Pharmacists Active 1973		
		Total	Percent	Rate	Total	Percent	Rate
United States		794,985	100.00	262	158,000[3]	100.00	1,289
Tennessee	100.00	12,939	100.00	324	2,113	100.00	1,952
Metropolitan Counties	45.00	8,988	69.00	210	1,129	53.00	1,676
Non-Metropolitan Counties	55.00	3,951	31.00	581	984	47.00	2,270

1. Persons per health personnel category.
2. Includes only non-federal Physicians in patient care
3. The data is for 1972, taken from Statistical Abstact of the U.S., 1974, Bureau of the census, U.S. Department of Commerce, Washington, D. C.

Source: The data for physicians is taken from Distribution of Physician in the United States, 1975, Vol. 1, Regional, State, County, A.M.A., Chicago, 1976. For dentists and registered nurses, data was provided by the Tennessee Department of Public Health, State Center for Health Statistics, Cordell Hull Building, Nashville, Tennessee. For pharmacists, data was taken from an HEW publication, "Registered Pharmacists in Tennessee, 1973," Health Resource Administration, 1974, Washington, D. C. The population estimates for 1975 were provided by the State Planning Office, Nashville, Tennessee.

Table II Total Number, State Average Population Ratio, and Range of Average County Population Ratios for counties with Health Personnel, Tennessee, 1975.

Health Personnell	Total No. in the State	State Average Ratio: Population/ Personnell	Range of Population/Personnel Ratio for counties with Health Personnel		
			Highest (Unfavorable)	Lowest (Favorable)	Ratio Highest/ Lowest
Physicians[1]	4,703	890	8,113	427	19.00
Dentists[2]	1,766	2,371	16,055	1,616	9.94
Registered Nurses	12,939	324	4,135	177	23.36
Pharmacists[3]	2,113	1,982	8,000	1,466	5.46

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1. Two counties have no physicians
2. Four Counties have no dentists
3. Two counties have no active resident pharmacists, data is for 1973.

Table III Average Population Per Personnel Ratio for Different County Groups.

County Groups	No. of Counties	Average Population/Personnel Ratio			
		Physicians	Dentists	Registered Nurses	Pharmacists
Rural Counties	17	3,368	4,398	1,412	3,162
Semi-rural	35	3,505	6,495	1,217	3,178
Adjacent Counties	30	2,385	3,931	778	2,462
Lesser Metropolitan Counties	8	1,316	2,740	423	2,329
Metropolitan Counties	5	610	1,765	135	2,064
Total for State	95	890	2,371	324	1,982

Table IV Criteria Used for Defining Unfavorable Population to Health Personnel Ratios, Tennessee.

Health Personnel	"Unfavorable" Population/Health Personnel Ratio, or Criteria Used
Physicians	1. 1,500 or more persons/physician 2. 2,000 or more persons/physician
Dentists	3,00 or more persons/dentist
Registered Nurses	200 or more persons/nurse
Pharmacists	3,000 or more persons/pharmacists

Table V Number and Percentage of Counties with Unfavorable Population to Health Personnel Ratios by Size of Population, Tennessee, 1975.

County Groups	No. of Counties	Counties with Unfavorable Population/Health Personnel Ratios								
		Physicians Criteria			Registered Nurse		Dentists		Pharmacists	
		State Av.	1,500	2,000	State Av.	200	State Av.	3,000	State Av.	3,000
0-9,999	17	17	16	14	17	17	17	16	13	9
10,000-24,999	35	35	33	30	35	33	35	33	24	13
25,000-49,999	30	30	26	20	30	30	29	22	22	5
50,000-99,999	8	5	3	--	5	8	6	13	7	1
100,00 and above	5	--	--	--	--	3	--	--	--	--
Total	95	87	78	64	87	91	87	74	66	28
Counties (%)										
0-9,999	100	100	94	82	100	100	100	94	76	53
10,000-24,999	100	100	94	86	100	94	100	94	69	37
25,000-49,999	100	100	87	67	100	100	97	73	73	17
50,000-99,999	100	63	38	--	63	100	75	38	88	13
100,00 and above	100	--	--	--	--	60	--	--	--	--
Total	100	92	82	67	92	96	92	78	70	30

Table VI Correlation Matrix, County Distribution of Selected Health Personnel in Tennessee.

Category of Health personnel	Physicians	Dentists	Registered Nurses	Pharmacists	Hospital Beds
Physicians	1	0.298	0.610	0.788	0.591
Dentists		1	0.0116	0.054	0.077
Registered Nurses			1	.0775	0.978
Pharmacists				1	0.072
Hospital Beds					1

Session 2

Extension Sociology (A)

"South Carolina Title V Extension and Research: A Comparison of Two Approaches". John Rutledge, Robert Pomeroy, and Stephen Lilley, Clemson University, and Nelson L. Jacob, Texas A & M University.

"Risk Taking and Extension Programming". C. L. Taylor and W. R. Summerhill, University of Florida.

"Applied Research as an Integral Phase of Community Development". Adrian L. Padgett and Edward L. McLean, Clemson University.

"Evaluating County Extension Programs". Clifton L. Taylor and Emily E. King, University of Florida.

South Carolina Title V Extension and Research: A Comparison of Two Approaches*

John Rutledge, Robert Pomeroy, and Stephen Lilley - Clemson University
Nelson L. Jacob - Texas A&M University

Extension and Research efforts conducted under Title V of the Rural Development Act of 1972 at Clemson University have made some major shifts within the past year. The purpose of this paper is to briefly describe the history of Title V in South Carolina, the present nature of Title V programs, and a comparison of present with past approaches.

Previous Title V Extension and Research Efforts

During the period 1974-1977, South Carolina's Title V program consisted of an intensive effort in one rural target county. A CRD specialist (50% Extension, 50% Research) was housed in that county and received research support from the university. For a brief period, a 100% Extension CRD generalist at the assistant county agent level worked full-time in the target county. In addition, Title V funding has been utilized to generate research support for county-level programs.

Although the results of this approach are well documented elsewhere (Jacob 1975; Jacob 1976; Wynn and Jacob 1977; Jacob, et. al. 1978), a few examples are in order. Extension Title V efforts were instrumental in the formation of a Council on Aging and a Human Services Interagency Council. Extensive technical assistance was provided in the planning of rural fire protection and a human service complex. Community organization approaches were used in a low-income minority community in an attempt to improve water and sewer services in the area.

The nature of the work performed by the CRD specialist required direct involvement with community people in the solution of their problems. In support of these activities, additional research was conducted at Clemson University by a Title V funded researcher.

The first phase of this research consisted of an inventory of the community's resource base, ranging from human resources to developable natural resources. Information was also collected on the perceptions of local citizen leaders about community and resource development, and their attitudes toward change via social action. This "leadership survey" was carried out with the utilization of a positional-reputational survey of general leadership, and of leadership within one of four general problem areas - economic development, natural resources, human resource development and community facilities and services. Interviewing was conducted in three waves. Each wave of new respondents was generated by the responses of the previous wave. The second part of this first phase of research was a comparison of leaders' perceptions about community image and those of the general public. There was general agreement between the two groups on the nature and subsequent response to community problem areas.

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*Paper prepared for presentation at the Rural Sociology Section, Southern Association of Agricultural Scientists, New Orleans, Louisiana, February 4-7.

The second phase of previous Title V Research consisted of a series of research activities designed to document the need for and support of particular Extension program efforts in the county. For example, the research on the proposed human resources campus was based on the premise that those health and social service agencies in the county having strong programs and client and/or staff relationships could be grouped to increase the convenience and quality of service to the citizens of the county. A recreation survey was conducted to aid in the implementation of a federally financed recreation program. In an effort to support Extension activities in schools, the educational leadership structure in the county was surveyed about their opinions on needed areas of emphasis in county schools, rating of various components of the educational system, and problem areas in the schools.

The third phase of Research activity was the evaluation component. Two specific and one general research projects were conducted. The general project was an overall evaluation of the progress and implementation of Research and Extension activities conducted under Title V for the years 1974-77. Additional general evaluation was conducted in conjunction with the national Title V evaluation by Pennsylvania State University and the National Rural Center.

The first of the two specific evaluations consisted of evaluating the formal leadership training. This project had three objectives: (1) to measure change in attitude towards social change, the social action process and leadership and leadership development; (2) to measure change in skills and knowledge associated with leadership; and (3) to measure change in participation patterns.

The second of the specific evaluation projects was aimed at determining the extent of participation in Clemson Extension programs, opinions and interest about community issues. Also evaluated was how local residents learn about community and state news.

Present Directions

During FY'78 the county based specialist position was vacated. A decision was made to change the orientation of the program from a highly concentrated effort in a defined geographical area to a state-wide emphasis. Two new specialists were hired with statewide responsibilities. One new position was for a "Social Action Specialist" with major concentration on 4-H/CRD, and the other a "Public Decision Making Specialist" with major concentration in local government and comprehensive planning. The activities of these two new specialists will be discussed separately.

Current Extension Activity

Social Action Specialist

The major concentration for the specialist during FY '78 is Youth/CRD. Efforts in Youth/CRD for FY '78-79 are taking four major forms: consultation with and training of county Extension personnel, support for specific Youth/CRD events as conducted in counties, the development of an incentives system for Youth/CRD, and programming and the development of literature to support county Youth/CRD efforts.

Agent Consultation and Training

The agent consultation and training function includes meeting with county Extension personnel with 4-H and/or CRD responsibilities to jointly evaluate present Youth/CRD activities and to discuss ways to expand and improve Youth/CRD programming at the county level. Emphasis will be place on:
(a) increased decision-making opportunities for young people in the present 4-H system
(b) programs for increased understanding of local government
(c) improvement in community service aspects of 4-H Club programs
This service will be offered statewide and work is underway to reach a minimum of 25 counties.

Support for Youth/CRD Events at County Level

This function includes meeting with county Extension personnel and citizen's committees to aid in planning and conducting Youth/CRD special events. Activities to be included are community awareness programs, governmental study workshops and internships, and career days. This service will be offered statewide with a minimum of ten counties reached.

An Incentives System for Youth/CRD

Cooperating with 4-H staff at the state level in the establishment of a mini-grant program to provide seed money for local 4-H community improvement projects will be the major part of this activity. A second incentives program would involve a criterion-referenced awards program for community improvement by 4-H clubs. Work will continue on each of these incentives programs throughout the year with the structure being completed during FY '78-79.

Literature Development

The two major types of literature to be developed are an "Agent's Guide to Youth/CRD Programming" and a "Volunteer Leader's Guide to CRD Programming for Local 4-H Clubs." The Agent's Guide will emphasize the Youth/CRD philosophy of youth involvement in decision-making, but will also include instructions for learning activities that are essentially adult-planned.

The Volunteer Leader's Guide will provide the following information:
(a) help the volunteer understand the importance of CRD activities to the success of a 4-H club
(b) give aid to volunteers in increasing the learning for 4-H'ers and the service to the community of community service projects
(c) help volunteers use the entire community for learning through the identification of resources
(d) provide volunteers with support materials for learning activities directed at certain CRD-related skills needed by youth

Youth/CRD programming is based on the belief that young people are eager to be of service and to work for the improvement of their community. Programs are being designed which allow young people to make meaningful contributions to their community, while gaining practice in leadership skills and decision-making. The goal is to facilitate through educational programming the involvement of young people in community development processes. Among the more specific Youth/CRD objectives are to help youth:

(a) learn about the workings of local government
(b) discover the many components of their community and how these components interrelate
(c) learn how decisions are made in their community and how they might have an impact on these decisions
(d) become involved in on-going community development efforts
(e) become involved with adults who are in decision-making roles
(f) gain skills in problem-solving
(g) provide a service to their community
(h) gain knowledge and skill in leadership

Public Decision Making Specialist

Planning Process and Policy Development

Economically and demographically, South Carolina can be characterized as relatively rural. Recent trends suggest rapid growth and transformation of the economy. This growth is causing increased strains on local government as new and expanded levels of services are demanded, pressures are put on farmers for conversion of their land to nonagricultural use, new development proceeds in a sprawled and uneconomic pattern, and social problems continue to rise. It is believed that by presenting local officials with a process of problem identification, policy formulation and implementation, followed by direct technical support, many of these issues could be ameliorated. The process is comprehensive community planning, which can be presented in an easily understood and workable method for dealing with land use, social, economic, and environmental issues.

The approach to be followed in the presentation of this method will be a series of state, district, multi-county, and county level workshops. These activities are being coordinated with the South Carolina Governor's Office--Division of Administration, the ten regional Council of Governments in South Carolina and professional organizations; e.g., South Carolina Society of Planners, South Carolina Association of Counties, and South Carolina Municipal Association. The first workshop sessions provide an introduction on how the planning process and a planning commission can serve in a more important advisory capacity in local government. These are presently being conducted. Future programs are in the process of being developed to cover policy development topics.

In conjunction with these workshops a number of publications are being prepared. One is a comprehensive handbook entitled A Planning and Development Manual for South Carolina Local Government. It will be used as a text in workshop presentations. Other publications include several Extension circulars dealing with land use issues such as zoning, private property rights and land use regulation, facts on land use planning, alternatives tools to zoning, growth management, and planning law. Video tapes and slide shows are being prepared to complement a number of these publications.

Historic Preservation

As one of the original 13 colonies and a history of 300 years, South Carolina provides an important heritage to future generations. With assistance from the Southern Field Office of the National Trust for Historic Preservation, the South Carolina Department of Archives and History, the ten Council of Government historic preservation planners, and local planners, a workshop on community historic preservation is being planned. This workshop will be presented at county and multi-county levels. Workshop goals are to increase local citizens' awareness of the past, its importance in maintaining the character of their community, how to establish a preservation commission, and how to prepare local historic preservation plans. A workbook and manual will be prepared to accompany this workshop which will explain how to establish a commission, how to prepare a historic preservation inventory and plan, and how to obtain technical and financial assistance. This effort will directly complement a thrust toward assisting municipalities in downtown revitalization.

Local Government

Efficient methods of accounting and management are essential to county and municipal government. As part of Title V Extension activities, workshops and a manual will be prepared on topics such as operating budget, capital improvement budget, service delivery, downtown revitalization, and citizen participation. Requests for such a program have been received from many South Carolina counties and municipalities. This program will be coordinated with a number of agencies and institutions. It has been proposed that a local government training committee be established so that a coordinated effort can be made in the delivery of these programs. Agencies working with Title V Extension personnel include the Governor's Office, the State Personnel Division, the Bureau of Governmental Research of the University of South Carolina, the College of Charleston, Furman University, the South Carolina Municipal Association, and South Carolina Association of Counties.

Environment and Natural Resources

In conjunction with the U. S. Environmental Protection Agency, Oklahoma State University - Environmental Extension Project, South Carolina Department of Health and Environmental Control, and the Clemson University Agricultural Extension Program, a Title V Extension specialist will be involved in conducting workshops for local groups and government officials on innovative and alternative technologies for municipal wastewater treatment. The goal of this program is to demonstrate how wastewater can be used in agricultural production.

Future workshops and publications are being considered on such topics as natural resource conservation, environmental planning, energy conservation, federal and state environmental programs, land use planning, and land use regulation.

Direct technical assistance is being offered to counties and some municipalities in South Carolina on such issues as agricultural land preservation, rural planning and land use regulations, economic development, local government operations, and service delivery. This assistance is provided in response to requests from county Extension leaders, local government officials, and officers of organizations.

Current Research Activity

Research for the current year includes continuation of some previous research, with the following additions (Table 1).

Youth CRD Research

As currently planned, research conducted in support of Youth CRD Extension activities involves only the needs assessment phase in addition to evaluation. Three research projects, each with two parts, are planned:

1. Survey of the Elderly
   A. Knowledge among the elderly of the availability of relevant community services.

This project would be an attempt to find out the degree to which persons sixty or older are aware of the availability of community services.

The information generated from such research could be used to encourage Extension agents and/or other agencies to conduct public education programs on community services for the elderly. That is, if the low-level of knowledge of services that is hypothesized is substantiated.

   B. Degree of interaction with young people (9-19) experienced by the elderly and desire for such interaction.

If predicted low level of interaction and high desire for such interaction is supported, information might be used to encourage "generation-mix" acitivities and to help shape the direction of these activities. (4-H and Extension Homemakers Clubs programming).

2. Survey of Local Officials
   A. Opinions of elected county government officials towards teen involvement in local decision making.

The above project would attempt to gather information on the opinions local government officials have regarding teen involvement in local government decision-making. In addition, information regarding willingness to support various levels of involvement of teens in local decision-making would be sought.

This information would be used in convincing Extension agents and others that programs for teen involvement have the support of local government officials, is such is the case. If not, education of the public officials about the need for citizen participation would be an identified need.

   B. Sources of information used by local government officials for receiving teen input on local issues.

This study would attempt to discover the major sources from which local government officials receive information concerning where teens stand on local issues.

Information would be used to help teens identify channels through which they can be heard by local government officials.

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An additional question might be directed at gauging the support local government officials would provide the youth advisory board concept.

3. Youth Government Programs
   A. Measures of attitude concerning local government.

Areas to be explored would include (1) teen's perception of the importance of local government decisions, (2) the degree to which teens approve of local government decisions, (3) teens' perception of their present and desired influence on local government decisions.

B. Measures of youth involvement in community improvement (self-reports) and of desired level of involvement.

This study would help by providing Extension agents with an indication of need for programming in youth community improvement activities.

In addition, Title V researchers are involved in a nationwide effort to survey County Agents and 4-H and/or CRD responsibilities. Topics to be considered include:

A. Description of present 4-H/CD programs, especially those which (1) exhibit a close working relationship between youth and adult volunteers, (2) involve youth and adults in planning for carrying out, and evaluating community action and, (3) have successfully involved key groups and individuals in the community in conducting the project.

B. Types of incentives and recognition used.

C. Involvement of youth who have received national or state citizenship training in CRD activities.

D. Research and training needs in 4-H/CD.

Planning Program and Local Government Operations Research

Research to be conducted in support of Extension planning programs and local government operations include in addition to evaluation both needs assessment and technical support activities. Technical support research will follow review of the following needs assessment research:

Questionnaire to determine attitudes and needs among planning commissioners, their staff, and elected officials across the state concerning land use planning.

This questionnaire will be structured so as to acquire information on the (A) success of ongoing planning programs-citizen and governmental support, success in getting policies implemented, success in managing growth toward desired goals, (B) problems they are facing, (C) needs for assistance-are they getting enough professional support, do they understand the planning process enough to feel comfortable with implementing plan, do they feel educational workshops on an ongoing basis would be helpful, what format would they like to see this take, what areas do they feel could use more education in citizen participation, zoning (tools), law, capital budget, procedure, government function, etc., would they be willing to attend an educational workshop, do they understand what grants, programs, services are available to them from state and federal sources, do they understand state and federal programs that impact on land use - 208 CZM?

Needs assessment and technical support for community development, environment, and historic preservation Extension activities are either not planned or already conducted.

Comparison of Programmatic and Geographical Approaches

The nature of past Title V efforts as compared to present activity varies along several dimensions. Among these are: proximity to community problems, nature of specialist's role in relation to community problems, the role of county Extension personnel in Title V efforts, methods of delivery, audience, and subjects addressed.

When the work of Title V was conducted in one county, personnel were in direct day-to-day contact with citizens of the community and their problems. This type of involvement carried over into the solution of those problems as well. The present statewide approach removes the specialist from this direct contact and intimate involvement in the communities he serves. This contrast is shown graphically in Figure 1.

The specialist's role has changed from that of a locally-based community development generalist who serves as a catalyst to local development, as well as a resource. One new specialist is in the position of providing support to local Extension workers in conducting CRD, and the other in providing training and direct technical assistance to local officials and others on a statewide basis.

Three general practitioner roles associated with three ideal types of purposive change have been previously outlined by Rothman (1970); each useful in particular historical/situational contexts and with certain organizational goal structures. In the first model of change, labeled locality development, the local community development practitioner facilitates the process of problem-solving, encourages the organization of community groups, and aids in the development of good interpersonnel relations. Under the social planning model of purposive change the general practitioner role may be termed fact-gatherer or program analyst. Emphasis is place on providing technical information for decisions directly related to the task at hand rather than on attempting to influence the process of how decisions are made. Finally, the third model of purposive change is labeled social action. This model presupposes a disadvantaged subgroup that views its interests in direct conflict with those of privileged subgroups. Here the practitioner functions as an activist, in order to facilitate "the organization of client groups to act on behalf of their interests in a pluralistic community area" (Rothman: 1970, 31).

No one role is the "right" or appropriate one in all situations; each may be appropriate depending upon the history of the community action, the situational context of the problem, and the constraints and opportunities afforded by the goals or objectives of the practitioner's organizational affiliation. Prior to the shift from a geographic to a programmic emphasis in South Carolina's Title V program, Extension community development activities varied along the full range of Rothman's ideal types. A previous paper (Jacob, et. al., 1977) has described how these three roles were integrated into various activities undertaken by the county-based CRD specialist. With the familiarity of local issues gained through day-to-day contact, the locally-based practitioner was able to quickly assume the appropriate role for the particular effort or phase of the project effort. Since the shift in emphasis in the overall program, practitioners have, to a greater extent, specialized in one role or another. This shift is a result of specialization of subject-matter areas, the move from county-wide to state-wide programs, and increased Title V staffing.

The role of county Extension personnel in conducting Title V has changed also. The agents in the target county cooperated in Title V efforts and did much to support the Title V specialist. The success of 4-H/CRD activities rests with the county agents. With the help of local volunteers, they conduct the program in their county. The specialist's role becomes that of providing support and direction for the agent's work.

Public decision making programs involve county Extension personnel as a link to decision-makers and as local contacts for problem identification. Agents refer local government officials to the specialist for technical assistance and inform the specialist of local problems for possible follow-up.

A summary of these comparisons is given in Figure 2.

Table 1. 1979 Research and Extension Activities by Phases*

	Research Phase		
Extension Activity	Needs Assessment	Technical Support	Evaluation
1. Youth CRD	X		X
2. Community Development	—	—	X
3. Environmental Enhancement	—	—	X
4. Planning Programs	X	X	X
5. Local Government	X	X	X
6. Historic Preservation	—	—	X

* "X" denotes planned research activity.

"-" denotes completed or nonessential phases.

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Figure 1. Outline of CRD Specialists' Activities

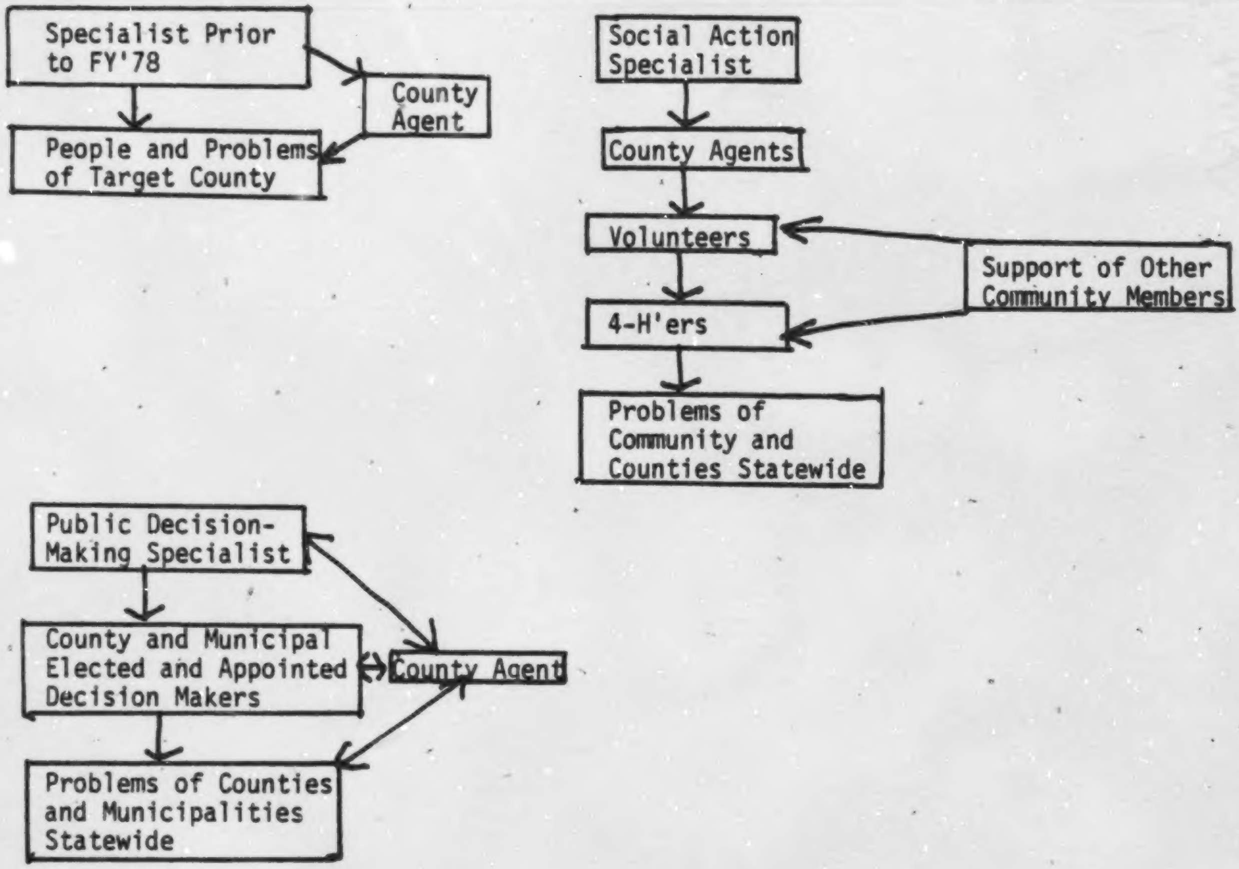
Specialist Prior to FY'78
County Agent
People and Problems of Target County
Social Action Specialist
County Agents
Volunteers
Support of Other Community Members
4-H'ers
Problems of Community and Counties Statewide
Public Decision-Making Specialist
County and Municipal Elected and Appointed Decision Makers
County Agent
Problems of Counties and Municipalities Statewide

Figure 2 Summary of Comparisons

	Specialist Before FY '78	Social Action Specialist	Public Decision Making Specialist
Geographic Assignment	Target County	Statewide	Statewide
Subject Assignment	General CRD	General CRD With Youth Emphasis	Comprehensive Planning and Related Topics
Major Audience	All Citizens of Target County	Extension Agents, 4-H Volunteers, 4-H'ers	Governmental Officials
Nature of Specialists Role	Process Consultant Social Planning Social Action	Process Consultant	Social Planning
	Direct Involvement With Community Problems and Their Solution	Trains Agents and Adult Volunteers to Facilitate Community Improvement by Youth	Aids Elected and Appoint Decision-makers in Solvi Community Problems Throu Education of Said Officials
Role of Extension Agent	Support Work of Specialist in County	Receives Training and Uses Knowledge Gained to Recruit and Train Adult Volunteers Who Advise Teens in CRD Activities	Refers Local Governmenta Officials to Specialist for Technical Assistance and Informs Specialist o Local Problems for Possible Follow-up with Officials

Risk Taking and Extension Programming

By

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Introduction

This paper proposes to discuss a study concerning the association between Extension Extension Agents' propensity to take risk and their approaches to educational programming. It is part of a larger study dealing with approaches to program development (Taylor 1975).

Extension has the broad responsibility of bringing about desirable change through educational programs. The memorandum of understanding between the United States Department of Agriculture and the Land Grant universities does not specify how Extension work is to be done. This broad responsibility with few guidelines has resulted in Extension developing a wide range of programs.

Extension was organized in an era when agriculture and rural life were dominant forces in American society. Its programs were concerned primarily with helping people solve problems related to rural life. In those early days of Extension, much of the agent's time was spent in disseminating information to rural people. Programming conducted by the Extension agent to deal with early 20th century agrarian problems was relatively simple and unsophisticated. Much of the early programming was cast in the farm demonstration approach.

By the mid-twentieth century the problems of people had become more complex as the population increased and the nation moved from a rural-farm to an urban-industrial society. Therefore, Extension broadened its scope of responsibility to include many social, political, cultural, and economic problems and issues for which it had not traditionally assumed responsibility. In A Statement of Scope and Responsibility, (1958) Extension recommended that nine program areas receive continuous and concentrated attention. Ten years later a joint study committee released a publication, A People and A Spirit, (1968) which took note of newer legislation directed toward urban, low income, and minority group problems and sought to relate Extension's efforts and its stated concerns for future emphasis with these complex problems. Thus, as Extension assumed greater responsibility for the complex problems of society, administrators and educators felt Extension should be developing and implementing major change programs that could make a significant contribution to the solution of societal problems.

Conceptual Orientation

Major change programs are conducted at the county level. Therefore, the county-based Extension agent is a most important key in planning, organizing, and coordinating resources necessary for a major change program.

There may be many variables operating in a major change program. Generally, the problem is complex and difficult to solve. This suggests a comprehensive educational program which implies a multidisciplinary team approach. In some cases coordination of a multidisciplinary team is difficult to achieve. Some of Extension's clients may favor the change; others may oppose it.

Therefore, the agent may not always be successful with a major change effort. There is some probability of failure. In a major change program the agent has made a commitment to himself, his peers, clientele, and administration. This suggests that the agent's self-image, salary, prestige, and other rewards may be influenced by the success or failure of a major change program. Thus, this approach to Extension programming involves some risk on the part of the agent.

Risk taking has been researched by business people, economists, psychologists, and others. Economists have been interested in a concept called "utility." The economists feel that individuals and societies should try to maxamize the utility of their resources. Psychologists studying risk have been concerned with risks individuals are willing to take in a "gambling" situation. The business researcher has looked at risk from the standpoint of capital investment decisions.

In studies on achievement, McClelland (1962, pp. 99-112) notes that the rise in civilization was not accounted for by external resources (i.e., markets, minerals, trade routes, or factories) but by an entrepreneurial spirit which develops these resources. McClelland concluded from his national achievement studies that a key characteristic of an "achiever" is to take risk.

Propensity to take risk varies among people. This was revealed in a study Williams (1961) conducted in a large light and power company in the midwest. The study investigated the effects of installing electronic data processing equipment on white collar workers and their work situation. Five hundred ninety-nine accounting employees, their 57 supervisors, and 18 managers were included in the study, along with a sample of 399 members of the sales division. High risk takers, in contrast to low risk takers, placed more emphasis on promotion and doing things they were best at and less emphasis on getting along well with other people and on employment security. The study also revealed that high risk takers had a greater tolerance for change in the organization and performed better than did low risk takers under changing conditions in the organization. Individuals were also found to dislike their work when their jobs provided less challenge in terms of risk than they willing to take.

Buchan's (1969) study also indicates some people are greater risk takers than others. His research studied over 80 percent of the managerial staff in a large petroleum corporation with operations from coast to coast. Buchan concluded that upper level managers are less risk takers than low level managers; young managers are more risk prone than older managers; and noncollege graduates are more risk prone than college graduates.

Atkinson (1966) contends that if motivation to achieve success is greater than motivation to avoid failure, a person will take a certain amount of risk. If motivation to avoid failure is greater than motivation to achieve success a person will avoid risk. An Extension agent motivated to avoid failure is not likely to program much differently than in the past. Extension administrators motivated to avoid failure are not likely to ask agents to commit themselves to programs that are much different from the past. Extension specialists at the state level motivated to avoid failure aren't likely to support county-based agents associated with a major change program.

Looking at a major change program from Atkinson's point of view concerning risk, an agent motivated to avoid failure may be reluctant to plan a major change program. On the other hand an agent motivated to achieve success would probably be eager to plan a major change program, believing an opportunity to take a risk to be more rewarding than avoiding failure. Thus, the question: are Extension agents risk takers; and, if so, does this influence the kinds of change programs they develop?

Procedure

This notion was tested with 85 Extension agents in Wisconsin (Taylor 1975) where the concept of major change programs is taught and promoted among the county Extension staff. Agents' plans of work were used as indicators of the kinds of programs they develop. Plans of work were evaluated with an instrument containing 27 criteria.

The validity of these criteria was tested by 16 Extension people who were considered knowledgeable about program development. The criteria used were those in which 75 percent of the judges had indicated they were moderately to very important to use as a standard in evaluating a plan of work. A scale of 1 through 6 was assigned to each criterion. The criterion was applied to the plan of work and a score ranging from 1 to 6 was assigned depending on how well the plan met the criterion. All the plans for each respondent were scored and a mean score was determined for each agent. Then a mean score was determined for all agents. Plans that scored above the mean were considered major change plans and were assumed to be indicators of agents who would develop major change programs.

A battery of 11 questions was designed to determine agents' propensity to risktaking. Reliability of the questions was determined by the RAVE (Baker, 1969, P.8) technique. RAVE is a scaling technique through which reciprocal averages are applied to the data. The method of reciprocal averages is a technique whereby one can quantify qualitative data. The reliability coefficient for the battery of questions was .6910. This met acceptable standards. The .05 level of significance was selected for use in this study.

The 11 questions were designed to elicit from agents the kind of Extension program, organization, and supervision they preferred. Data were obtained by a mail questionnaire.

Results

The data below reveals that there is no significant relationship between agents' propensity to take risk and the kinds of programs they develop--major change or maintenance

Agents' Propensity to Take Risk by Programming Approaches

Propensity for Risk Taking	Maintenance		Change		Total				
	No.	Per-cent	No.	Per-cent	No.	Per-cent	Percent of Total	X^2	P
Low	9	60	6	40	15	100	19		
Medium	18	40	27	60	45	100	59	2.35	NS
High	6	35	11	65	17	100	22		

Data in the above table points out that 59 percent of the agents had a medium propensity for risk taking. Sixty percent of the agents in this category developed major change programs contrasted with 40 percent who developed maintenance programs. Sixty-five percent of those identified as high risk takers developed major change programs while only 40 percent of those identified as low risk takers developed major change programs.

Conclusions

Based on these findings one may conclude that propensity to assume risk is not associated with the kind of programs agents plan, which suggests that other factors influence agents' programming methods.

This implies that in a major change program, administrators and Extension educators may need to focus less on programming methods that reduce the stress, tension, and apprehension created by a high probability of failing and more on variables, such as, knowledge or "how to do" and resources needed to implement the program.

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APPLIED RESEARCH AS AN INTEGRAL PHASE OF COMMUNITY DEVELOPMENT

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INTRODUCTION

The topic of concern in this manuscript is applied research for community and resource development (CRD) programs. Problem identification and need studies for prospective community and county projects shall subsequently be discussed. Projects conducted in cooperative extension services shall be of prime concern, but the principles are relevant for a wide range of agencies, organizations, and firms. The authors recognize that programs vary, depending upon the state, county, local conditions, and situations over time. Some of these variations follow:

In cooperative extension, county personnel may conduct applied research as part of on-going programs.

CRD specialists may conduct the research specifically for county personnel.

The CRD specialist may conduct the research and then play a major role in implementation of a social action project or projects.

A researcher, not directly associated with extension, may perform studies for general or specific needs in extension.

Applied research, conducted for non-extension purposes, may be utilized in county and community development programs.

The third approach is that which is reported in this manuscript. Research will be described that was conducted by one individual. Consequently, there was complete coordination between the research and application tasks. It is recognized that the CRD specialist may often be responsible for a very large geographic area, but a consistent and uniform program is likely to be conducted.

LITERATURE

Problem identification and need studies, conducted on the community level and for specific application programs, are not new. The classic applied community organization projects, administered during the first third of this century, all included such research in their overall design (Edwards and Jones, 1976). Recent writing has understandably dealt with questions of approach and methods. For example, topics include: content of program, appropriate personnel, procedures, identifying clients, communication techniques, level of participation of specialists, and assessments of accomplishments.

With respect to extension programs, it is suggested that community representatives are not likely to initiate inquiries about CRD programs. CRD specialists, like all extension workers, must justify their programs through successful projects (Awa and VanCrowder, 1978). This point is emphasized from statewide research in Kansas (Prawl and Jorns, 1976). These authors also note that mayors and association officers are clients and can certainly facilitate subsequent stages in the social action process. Reeder (1975) reiterated the importance skilled specialists for CRD programs, who follow deliberate and systematic procedures such as those reported in this manuscript. After the initial research is conducted and meetings are held, the specialist must be enlightened; in some cases it is desirable to just observe; in others the specialist should suggest alternatives, possible courses of action, and actually help organize and implement the programs. Reeder notes that communication is a prime ingredient, and he suggests that, at the initial meeting and after introductions, those in attendance be arranged into small groups.

The reference most relevant to the topic examined in this manuscript was contributed by Blake, Kalb, and Ryan (1977). The authors contend that community development programs are rarely effective in the absence of prior applied research. The authors conclude that two types of research should be conducted; surveys to determine "action preferences" and to determine "citizen concerns." Procedures for obtaining names in face-to-face and telephone interviews are suggested. Several stages and levels of data gathering are recommended. Another example of applied research that can be useful for a wide range of programs is provided by Schwebel, Jones, and Kaswan (1978). In this case the survey research is highly structured, adapted to urban communities, and the findings quantified. Specific problems and needs can then be identified on a neighborhood level.

Extension and research specialists in CRD in South Carolina have experimented with applied research in community and county extension programs for several years. Specific guidelines for community and county work were prepared (Ladewig, 1975; McLean and Carroll, 1975). These documents suggest policy and procedures in which survey research is required for initiation and implementation of new programs and for programs in which there are shifts in emphasis or problematic thrusts. The presumption in these guideline documents is that the research is initiated by specialists with community development experience; it is not essential that the researcher have a joint research/extension appointment. It is specified that the researchers have knowledge of and work closely with all extension levels, particularly the relevant county workers. After the research is initiated, state, district, or county specialists may then conduct the research, participate in implementation of the action projects, and then, either monitor or participate in the on-going programs. The role of the researcher, then, is to initiate the research and, if time and job description permit, participate in the project(s). Critical stages are follow-up and evaluation; it is recommended that the researcher participate in follow-up activities and assist in conducting the evaluation.

Experience has demonstrated the viability of this approach in South Carolina. Research has been conducted on a county-wide basis for a non-extension recreation program and research has been conducted in one community as part of an extension recreation program in that county (Heckle, McLean, and Kirby, 1976). This approach has been applied in a somewhat ideal sense in South Carolina's Title V, Rural Development Act of 1972, program. Initially, applied research was conducted, on a county-wide basis, by two individuals with joint research/extension appointments, one located in the county and one not. These were problem identification and need studies in which the respondents were elected officials, agency heads, association officers, and other influentials and knowledgeables in the county. Specific extension action projects were subsequently initiated and implemented as a direct result of the problem identification and need studies (Jacob, 1976; Jacob, Lilley, and Wynn, 1977). Additional findings from the applied research contributed to initiation of one rather specialized project dealing with health facilities and services (Wynn, 1975). Additional research was also conducted as part of the follow-up and evaluation phases (Lilley, McLean, and Jacob, 1977).

PROCEDURES

Although this approach has achieved some success in South Carolina, it may be inefficient to fund one full-time position (joint Research/Extension) in a single county. Another alternative, assuming that applied research can not or will not be conducted by county-level extension personnel, is for district or regional level CRD specialists to conduct the research in selected communities and counties. The senior author of this manuscript is a full-time CRD Specialist and Assistant Professor of Agricultural Economics and Rural Sociology. The given region is comprised of nine eastern South Carolina counties with a total of 437,000 inhabitants. There are 48 incorporated places in the region with a total of 197,000 inhabitants. Applied research has been conducted in communities and counties in the region. Results from projects in six communities shall be presented in this manuscript.

The CRD specialist may learn of community development needs directly from a given community, from a county extension leader (formal title), or from other extension sources. In any event, the county extension leader is invited to all meetings and informed of all communication with representatives of the community. The most frequent sources of contact in the communities are officers or executive committees of beautification and improvement associations. The specialist subsequently explains his program to that group, which may or may not decide to pursue the program.

The mayor of a town may be the initial contact or secondary contact person in the community. The mayor, and in most cases, the town council is then informed of the program and this group may or may not decide to pursue the program. If these groups accept the services of the specialist correspondence is exchanged (and appropriate carbon copies distributed) indicating details of the agreement and explaining exactly what the specialist will do.

The specialist then obtains names of potential respondents, which is expedited in three stages. Conversations with the mayor and/or other community representatives provides an initial list of names. These individuals are asked to provide additional names of those who are influential and knowledgeable about strengths and needed improvements for the community. These individuals are also interviewed to determine strengths and needed improvements. A copy of this and other questionnaires may be obtained from the senior author. A list of names is consequently generated for which the individuals are not interviewed in a face-to-face setting. The questionnaire is mailed to these individuals, and an average return rate of one-third is achieved. The initial lists generate as many as 80 individual names; the subsequent list may contain as many as 100 additional names, in the given communities.

The specialist then calls a meeting. All the previously generated names are invited along with local, county, council of government and state resource persons. This is an open, community-wide meeting. Information about the meeting and its' purposes are publicized in local newspapers and on radio stations. At this meeting the research findings are presented; then those attending are divided into small groups. A brief guide is distributed to assist the groups in ordering needs or problems of the community. A copy of this guide may be obtained from the senior author. The groups discuss feasibility of programs to meet the needs or solve the problems; alternatives are discussed and a representative of each group reports on the discussion of that group. The specialist and other resource persons at the meeting comment on the recommendations of the groups. Discussion is directed to the selection of priority projects for the community. Suggestions for organization of efforts to implement these projects are provided. The resource persons offer their assistance for relevant projects.

During the weeks following the meeting, the specialist monitors the social action of the community. In some cases this is the only subsequent role of the specialist. In other cases the specialist works closely with advisory and action committees and provides technical assistance. In most cases, the specialist directs committees to appropriate resource persons or agencies; e.g., county, council of government, or state resources.

THE COMMUNITIES

Characteristics of six community development projects, whereby the previously described procedures were followed, are presented in Table 1. The communities are assigned one-letter acronyms for purposes of simplicity and confidentiality. All of the communities have rural hinterlands and built up rural-nonfarm areas surrounding the agricultural service center. The total area population is probably two or three times greater than listed for the center.

At least three reasons account for the variations in population - respondent ratios among the communities. First, the communities are simply different; some communities have a higher proportion of influentials and knowledgeables than others. Second, some variations in procedures occurred from community to community. Finally, the input of individuals (e.g., individual contacts, subsequent respondents, local idiosyncracies) created some variations. The numbers and proportions of strengths and needed improvements varied from community to community for similar reasons. Some communities simply have more strengths or perceived needs than others. Some respondents are more conversant than others and local idiosyncracies may result in more strengths or needed improvements being listed.

The numbers of individuals listed as influential and knowledgeable about community strengths and needed improvements, by other respondents, from Phase One interviewing, are presented in Table 2. Many additional individuals were given multiple listings in each community; Table 2 lists the highest seven frequencies from the six communities. Data from Table 2 indicate that the interviewing appropriately obtained information about the individuals who could intelligently converse about the strengths and needed improvements in the respective communities.

Responses regarding favorable aspects of the six communities are presented in Table 3. The most frequently mentioned strengths are listed. These responses certainly emphasize rural and small town values and preferences. Friendliness and safety were frequent responses, along with aesthetic consideration. Community A did include environment and geographic area as desirable attributes, and progressiveness was listed most frequently in Community B.

Table 3 also contains lists of the improvements that respondents indicated were needed in the six respective communities. The top four needed improvements are listed in order of frequency of response. Recreation and leisure or park facilities appears on the list for all six communities. Beautification was a need in four communities; industrial development and streets and sidewalks were on the need list in three communities. When respondents explained the industrial development response, desires for one or two small and clean employing firms were emphasized. These responses correspond with rural and small town values regarding aesthetics and residential ammenities. These needs (with the possible exception of industrial development), nevertheless, can be translated into community development projects.

The CRD specialist has continued to communicate with representatives of the six communities. In some cases, the specialist worked closely with organizations and committees in order to implement social action projects. In others the specialists received letters and telephone calls about the community development projects. Follow-up reports from the six communities are presented in Table 4. The year in which the applied research was conducted is also listed for each community.

RECOMMENDATIONS

The authors of this manuscript believe that county extension personnel should be involved in all aspects of community development projects, with specialists supervising the applied research. In South Carolina, however, very few county-level personnel have even partial CRD appointments. CRD specialists at the state or district level must then initiate, and in most cases implement, county and community development projects.

Six community development projects are reviewed in this manuscript. The authors believe that this experience demonstrates the effectiveness of specialists conducting coordinated and systematic community development projects. The CRD specialist can then communicate results of successful community development projects to extension and other appropriate administrators. Local and state legislators and officials learn about these success stories and, eventually, support is provided for CRD specialists at the state, district, and county levels. Progress such as this has taken place in many states.

The authors also recommend that a system of reciprocal communication be specified for each community in which applied

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research is conducted. The specialist can then determine activities of organizations and committees and of progress on projects in the community even though he or she is not intensively participating in each action phase. The authors recommend that applied research for community development be systematic, but variations may be incorporated into the projects. After the specialist solidifies plans for the research, with community representatives, others (e.g., college or university students) could conduct the face-to-face and telephone interviews. It is not desirable for members of the community to conduct the interviews, however.

Variations may also be introduced to the methodology for obtaining lists of influentials and knowledgeables. Questions can be included, in phase one interviewing, to obtain additional names of low-income, minority, and female respondents. Finally, the authors wish to emphasize the importance of the community-wide meeting. Great care must be taken to insure that this meeting be conducted properly and consequently productive.

SUMMARY AND CONCLUSIONS

The topic of applied research for community development programs is discussed in this manuscript. The approach assumed is that a CRD district specialist may conduct the research and then play a major role in implementation of community development projects. A representative or representatives of a community initiate the program with the specialist. Names of individuals are obtained for interviewing and mail questionnaires. Information is gathered regarding strengths and needed improvements in the given communities. A community-wide meeting is held which facilitates initiation of social action projects.

Results from six community development programs are presented. Responses concerning strengths of the communities indicated aesthetic considerations. Responses concerning needed improvements emphasized: (a) recreation, park, and leisure facilities; (b) beautification; (c) industrial development; and (d) streets and sidewalks. Follow-up reports indicated that at least two social action projects had been initiated and implemented in each of the six communities. In most cases, new committees or organizations had been created and most of the goals set by these groups had been accomplished or were actively pursued.

Community officials reported that these projects probably would not have been conducted, were it not for the extension CRD specialist. It is emphasized that new groups are established and individuals participate in community projects not previously considered. These individuals thus gain appreciation of pluralism in a democracy, on state and national as well as local levels. The program rekindles values of participation in public affairs on the community level.

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Table 1
Applied Research for Community Development
Characteristics of Six Communities

Community	1975 Population	Number of Names Phase One	Number of Names Phase Two *	Frequency Strengths	Frequency Needed Improvements
A	986	76	129	220	260
B	1,379	54	63	100	186
C	905	48	92	103	209
D	1,733	47	90	148	223
E	2,293	47	169	117	211
F	1,020	43	47	70	173

* Most, but not all, of the names for Phase Two were also listed for Phase One

Table 2
Applied Research for Community Development
Frequencies of Phase One Listings, Top Seven Respondents
Six Communities

Community				Respondent			
	I	II	III	IV	V	VI	VII
A	19	14	11	9	8	7	5(4)
B	14	10	10	10	9	8	8
C	20	18	12	12	11	10	8(2)
D	22	14	13	12	12	12	11
E	19	16	12	11	10	9	9
F	20	19	9	8	8	8	7(2)

Table 4
Applied Research for Community Development
Follow-up of Community Development Projects
Six Communities*

Year	Community A Progress
1977	A 6.6 acre recreational park has been established with tennis courts, multi-purpose courts, and restrooms; a baseball field is under construction; the CRD specialist has been asked to suggest alternatives for the remainder of the park. Documentation of needs for recreation facilities enabled the community to obtain COG-state-federal funds.
	Community B
1976	A new organization was established; the organization, with assistance from extension specialists, designed and implemented a plan for beautification of the downtown area; the CRD specialist arranged for architect students to design new facades for all downtown buildings. A new industrial development committee was established; a recreation committee was re-established. A new dentist was obtained.
	Community C
1977	Property for a 6 acre recreational park has been acquired; COG-state-federal funds have been obtained. An organization was created to initiate and implement improvement of streets and sidewalks.

Year	Community D
1976	An organization was established to work toward a recreational complex. Local funds were matched with funds from other sources to finance a recreation center. Drainage problems are being expedited. An industrial development committee was established and beautification and rehabilitation of selected housing areas has begun.
	Community E
1978	A beautification campaign resulted in a beautification contest and continuing efforts. A recreation and park committee was re-established and rehabilitated the community park. A medical and health committee was established. Streets, previously unpaved have been paved and other streets have been re-surfaced.
	Community F
1976	A new organization was created to initiate action for recreation, beautification and retail improvement; respective committees were appointed. Application for a GOG-state-federal recreation grant was prepared and approved. Owners of downtown buildings were persuaded to renovate the facade of their buildings. New retail businesses have moved into the downtown buildings.

* Clean-up campaigns have been conducted in all six communities.

Table 3
Applied Research for Community Development
Strengths and Needed Improvements
Listed in Order of Frequency, Six Communities

	trengths	Needed Improvements
Community A	riendly lean environment, resi- ential, good geographic ocation	Recreation and Park facilities Beautification Sewage and drainage Law enforcement
Community B	rogressive, small riendly town	Recreation and leisure facilities Beautification (old stores) Retail Businesses Sub-standard housing
Community C	ranquil, small, safe, eat town	Recreation and park facilities Industrial employment Beautification Streets and sidewalks
Community D	Small, quiet, civic-minded, safe, friendly town	Recreation and park facilities Drainage Induatrial employment Sub-standard housing
Community E	Friendly, neighborly citizens Peaceful and quiet community	Beautification Recreation and park facilities Medical (physicials, a clinic and 24-hours service) Streets and sidewalks

	Strengths	Needed Improvements
Community F	Small, friendly, sleepy town	Industrial employment Retail businesses Recreation and leisure facilities Streets and sidewalks

EVALUATING COUNTY EXTENSION PROGRAMS*
(CLIENTELE PERCEPTIONS)

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Introduction

In January 1974 the Florida Cooperative Extension Service designed, initiated and designated resources for a long-term program evaluation effort. During the past five years, the Extension programs in 50 Florida counties have been closely examined, analyzed, and evaluated.

Theoretical Model

The method of analysis and evaluation follows the framework, guidelines, and strategy presented in *Analyzing Impacts of Extension Programs*[1] by Claude F. Bennett. Bennett views Extension programs in terms of seven levels of objectives and evaluative evidence.

HIERARCHY OF EVIDENCE FOR PROGRAM EVALUATION

7. End Results--Ultimate Objectives; "Side Effect"
6. Practice Change--Individual Innovation; Structural Change
5. KASA Change--Direction and Extent; Duration of Change
4. Reactions--Interest in Activities; Acceptance of Leadership
3. People Involvement--Number and Characteristics; Continuity and Intensity
2. Activities--Educational Methodology; Subject Matter Conveyed
1. Inputs--Time Expended; Staff Qualifications

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*Paper presented at the annual meeting of the Southern Association of Agriculture Scientists, Rural Sociology Section, New Orleans, Louisiana, February 5, 1979.

[1] Claude F. Bennett, *Analyzing Impacts of Extension Programs*, Cooperative Extension Service (1977).

Bennett further recognizes the variation in quality of evidence[2] and responses from "hard" to "soft" data. He sees observations as "hard" to the extent that they are valid, representative, and quantified. Data as perceived by respondents would fall toward the "soft" area of the continuum.

"Hard" to "soft" data may be gathered at any level of the hierarchy. It is generally recognized that the degree of "hardness" of data is closely correlated with costs in time and resources required for collecting evaluative evidence.

Source of Data

Data were gathered from existing records, county personnel, cooperators, supporters, and clientele. In twelve of the counties perceptual data were gathered from some clientele through mail questionnaires.

The choice in the use of perceptual data was made to relieve the strain on the resources for evaluation and in the belief that the quality of decision making based on evidence would not be enhanced in proportion to increased cost of sharing other forms of evidence. Table one shows the twelve counties in which the clientele were surveyed by mail questionnaires. The number and interests of the audience varied but included 4-H and youth, home economics, and several agriculture or commodity groups.

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[2] *Ibid.*, p. 11.

The Instrument

The mail questionnaires were designed to ascertain reaction to levels four, five, six, and seven of the "Chain of Events in Extension Programs."[3] Each of the mail surveys included one or more of seven questions designed to elicit clientele's perceptions of:

1. the value of Extension
2. the amount of help received from Extension
3. the number of changes made based on Extension recommendations
4. the amount learned from Extension programs
5. their trust in Extension recommendations
6. the regard others have of Extension
7. the importance of the problems which Extension programs address

The respondents were asked to identify one of four degrees (much, some, little, or none) of reaction to each inquiry.

Respondents

The county mailing lists were generally the source of specific and identifiable audiences. In cases where mailing lists were large and possibly burdensome, questionnaires were sent to every other or every third name on the selected list.

Table one shows that there were 700 responses from agricultural interests, 591 from home economics, and 131 from 4-H and other youth, a total of 1,422 in all. This roughly represents a 28 percent return of those sent out.

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[3] *Ibid.*, p. 4.

Table 1.--The number of responses by area of interest in twelve Florida counties.

County	Number of Responses		
	4-H and Youth	Home Economics	Ag. or Commodity
Bradford	. .	35	56
Citrus	. .	130	44
Dade	54	184	200
Dixie	22	. .	21
Hamilton	44	25	18
Hendry	. .	. .	36
Layfayette	. .	. .	15
Palm Beach	11	41	115
Pasco	. . .	46	60
Seminole	. .	64	61
Suwannee	. .	27	34
Walton	. .	39	40
Total	131	591	700

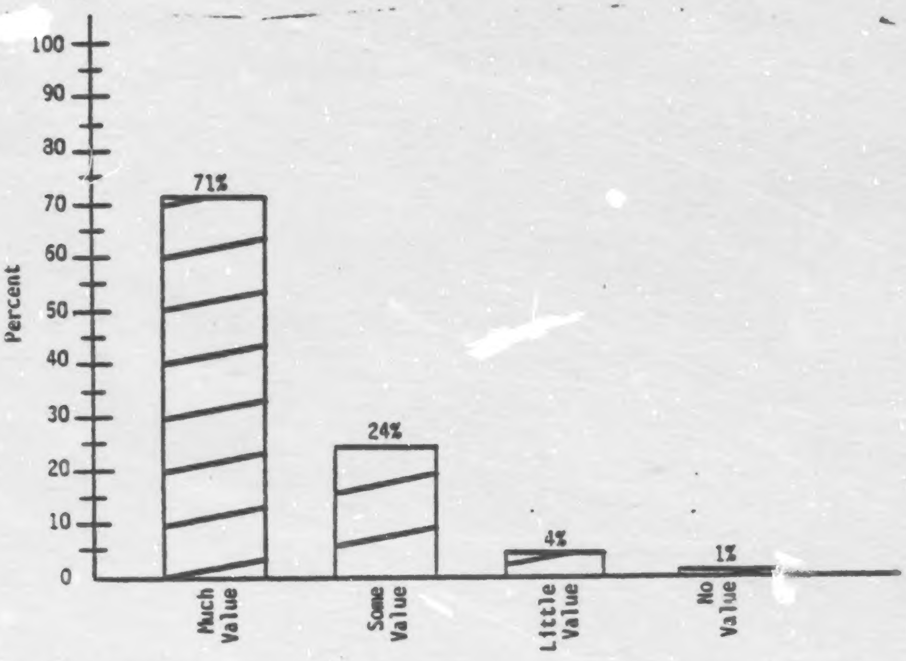
Scope of the Paper

This paper is limited to discussing how to operationalize the Bennett model in obtaining perceptual data by mail questionnaire.

Results

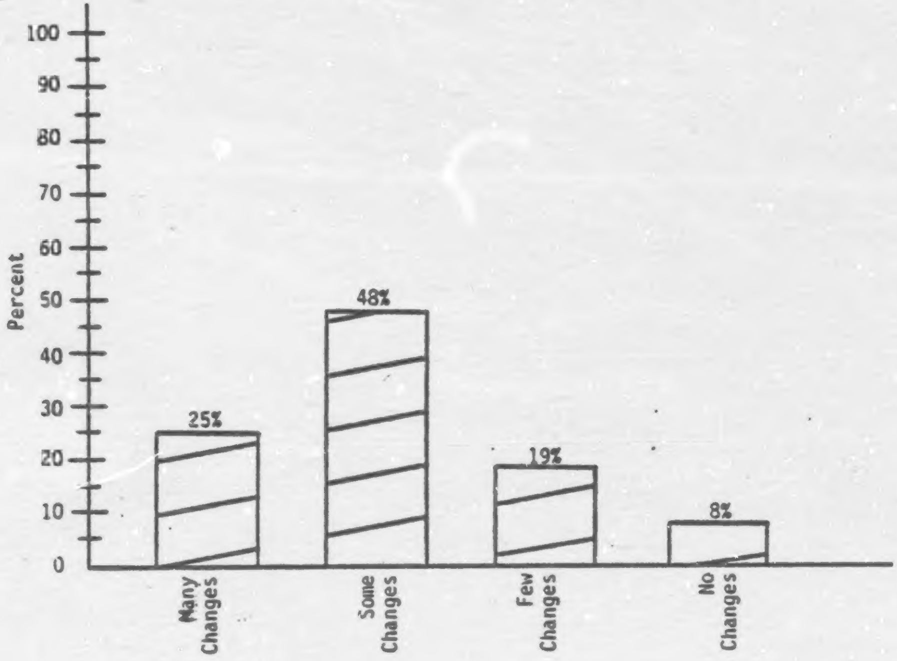
The following figures indicate the kind of data obtained and the results as the model was operationalized.

Figure 1: Extension Clientele's Perception of the Value of Extension Programs, Florida, 1978.



Total Number of Respondents = 1,397

Figure 2: Extension Clientele's Perception of the Number of Changes They Have Made Based on Recommendations From Agents, Florida, 1978.



Total Number of Respondents = 611

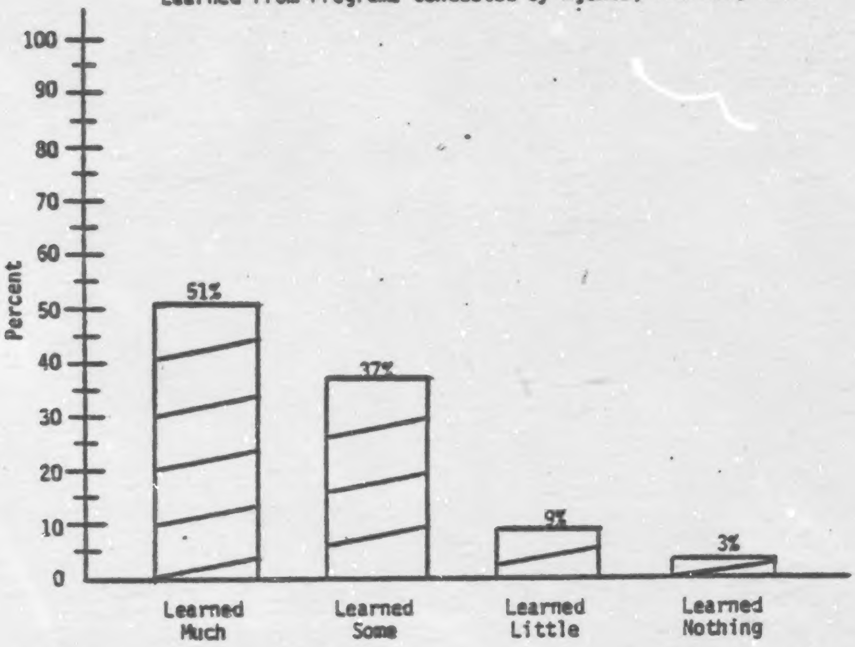
Figure one indicates that 71 percent of those responding felt Extension programs were of "much value" to them. To obtain these data, questions were constructed similar to the following: "How valuable has the Dade County Extension Fruit Crops programs been to you?" We consider this question to provide evidence of "end results" or level seven in Bennett's model.

Figure two reflects the clients' perception of the amount of change they had made as a result of Extension programs. A question of this nature was used to elicit the evidence: "Have you made changes in your vegetable operation based on recommendations from the Extension agents?" This question attempts to implement level six or "practice change" in the model.

Figure three gives some insight into how much people feel they have learned as a result of participating in Extension programs. Fifty-one percent of the respondents indicated they had learned "much." These data were obtained with a question similar to the following: "How much do you feel you have learned about vegetable production from programs conducted by the Dade County Extension agents?" This question is used to implement level five or change in knowledge, attitude, skill, and aspiration.

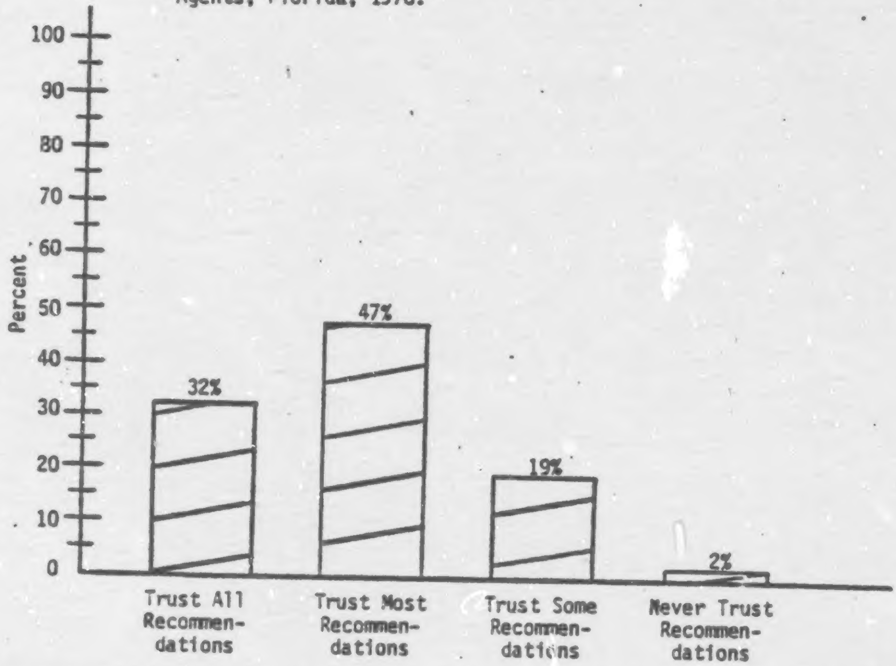
Figure four suggests clients' reaction to Extension programs. To obtain evidence for this level of evaluation, a question similar to the following was used: "Do you trust the recommendations of the Extension vegetable agents?"

Figure 3: Extension Clientele's Perception of the Amount They Have Learned From Programs Conducted by Agents, Florida, 1978.



Total Number of Respondents = 624

Figure 4: Extension Clientele's Trust in Recommendations Made by Agents, Florida, 1978.

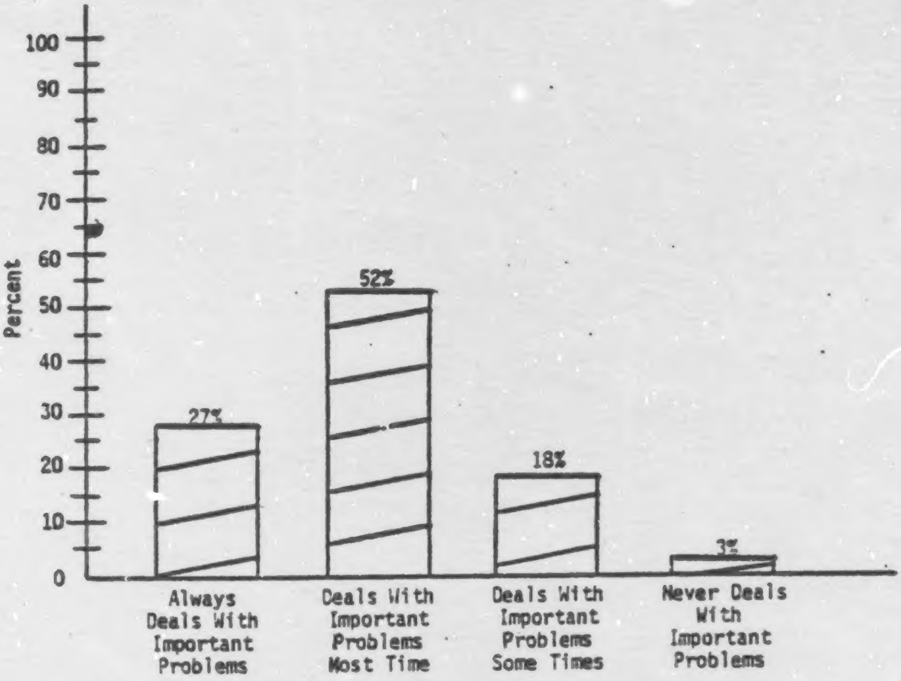


Total Number of Respondents = 536

84

72

Figure 5: Extension Clientele's Perception of the Way Extension Deals With Important Problems, Florida, 1978.



Total Number of Respondents = 411

Figure five, also, provides data concerning clients' reactions to Extension programs. A question of this nature was used to operationalize level four of the model: "Does the Date County Extension vegetable program deal with the important problems or conerns of the vegetable growers?"

Summary

This paper has discussed how Florida Extension has operationalized levels four, five, six and seven of Bennett's theoretical model of program evaluation.

Based on perceptual data obtained by mail questionnaires from 700 farmers and ranchers, 591 homemakers, and 131 youth leaders, this model appears to provide a systematic and sound approach to evaluating Extension programs.

EVALUATING COUNTY EXTENSION PROGRAMS*

(Clientele Perceptions)

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University of Florida

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*Paper presented at the annual meeting of the Southern Association of Agriculture Scientists, Rural Sociology Section, New Orleans, Louisiana, February 5, 1979.

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Session 3

Extension Sociology (B)

"Rural Roots and Urban Crime". John H. Lindquist, Michael Kearl, and Richard Machalek, Trinity University.

"Educational Impacts of Rapid Population Growth in Rural Communities". Peggy J. Ross and Bernal L. Green, USDA-CR.

RURAL ROOTS AND URBAN CRIME*

John H. Lindquist

Michael Kearl

Richard Machalek

Trinity University

Southern Association of Agricultural Scientists, New Orleans, February, 1979

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*The writers of this paper express their deep appreciation to Mr. Herbert Schaeffer, Chief Clerk, Criminal Division, Bexar County District Clerk's Office for assisting in gaining the data reported here. This research was supported by a Trinity University Research and Development Grant, TU-108-77.

RURAL ROOTS AND URBAN CRIME

The very idea of a "rural sociology" presupposes a natural division in the social world. Society is viewed as comprised of two spheres, the rural and the urban. This distinction is not considered arbitrary. Rather, it implies a very real (if somewhat ambiguously conceived) qualitative difference within social reality. Simply put, rural society is not cut from the same cloth from which urban society is fashioned. As a result, the behavior of ruralites is seen to be sufficiently different from that of urbanites to justify special consideration. A good share of that special consideration issues from rural sociologists.

Modern sociology itself owes much to the fact that its 18th and 19th century founders helped establish the rural-urban distinction. Most theorists of social change elaborated the idea that modernization must be understood as a great community transformation process. Social thinkers tirelessly submitted accounts of the nature, causes, and consequences of urbanization, industrialization, and modernization. And in one way or another, all of these accounts pivoted around the rural-urban distinction. Thus, a great deal of what has since developed into modern rural sociology may be understood as a fleshing-out process. The skeletal interpretations of Tönnies, Weber, and Simmel among others became corroborated and elaborated by subsequent generations of theorists and researchers. Most social scientists would acknowledge that such efforts have been rewarding. Vast repositories of journals, monographs, research bulletins, and books have documented that Simmel's metropolis is not Tönnies' Gemeinschaft.

However, our understanding of the precise nature and full extent of these differences is all-too-often based more on lore than science. Lore, both popular and theoretical, provides accounts of that which science has yet to explain. The doctrine of value analysis notwithstanding, our more than occasional reliance on lore has produced understandable if not regretable preconceptions about rural-urban differences. In short, while Tönnies' idea of Gemeinschaft has enjoyed our longing, nostalgic attention, Simmel's idea of "metropolis" has more often than not evoked fear, caution, and bewilderment. Perhaps our contemporary conceptions of rural life have not been fully purged of all traces of romanticism. Recently, the media have helped create a greater awareness of the politics of confrontation in the rural American scene. It is one matter to admit to the reality of rural migrant laborers adopting an adversary stance toward their employers. It is quite a different matter to come to terms with middle class WASP farmers organizing and conducting deliberately disruptive public protests. The latter image particularly disturbs the romanticized conception of the rural life. It presents the unsettling possibility that perhaps rural America enjoys no great immunity to those afflictions once regarded as predominantly urban.

Crime has been one social phenomenon used to emphasize the differences between rural and urban settings. Popular lore has informed that the small, informal setting nurtures neighborliness, unlocks doors, and engenders mutual trust. On the other hand the gaping maw of the city produces fear, distrust, and hostility. Recent years, however, have witnessed not only rural sociologists but television news programs noting with alarm the "new" specter of rural crime. Traditional "rural crimes" such as arson have now been joined by a host of their city cousins such as theft, murder, vandalism, and rape. The romantic conception of rural society again faces challenge.

Of course, the problem of rural crime need not be seen as a failure of the social structure or cultural integrity of the rural community. Rather, it may be that the city exports criminals to the farm. Implied in such an interpretation is the notion that rural settings are simply less likely to produce criminal behavior than urban settings. A derivative idea suggests that the kinds of crimes committed by ruralites are less serious than those of their urban counterparts. Such questions call for rather complex analyses of crime rates and patterns. A first step in the direction of making such determinations follows in this report.

Our approach was to take a more simple, preliminary alternative to studying rural-urban crime differences by focusing on urban offenses alone. Two catagories of people who commit crime in urban areas were distinguished: those of rural birth and those of urban birth. The main goal of such an approach was simply to see if any differences between rural born and urban born could be discerned. Such differences, if discovered, could indicate variation in community influences on socialization. Socialization differences could produce behavioral differences with respect to crime. This report was an attempt to identify any such differences by comparing rural to urban born felony defendents. To emphasize, the main goal of the following analysis was to try to discern differences among felons potentially attributable to community of origin.

METHOD

Data regarding the judicial event history of all offenses adjudicated by the District Courts of Bexar County, Texas from September 1, 1975 through April 30, 1978 were gathered and stored on computer tape. Personal information regarding the defendant charged with each offense, prior bookings of each defendant, and type of attorney (retained or appointed) each defendant had were also made a part of the record. It is emphasized here that the unit of analysis is the offense committed, i.e., 6245 offenses studied were not committed by 6245 different persons. Bexar County, Texas consists primarily of San Antonio and several smaller cities. It is thus a metropolital island in a primarily rural south-central Texas sea.

SAMPLE

Felony offenses were divided into two catagories; those committed by persons born in Texas places of 1000 and under (rural born) and those born in Texas places of 100,000 and more (urban born).

This dichotomazation of the data produced 6245 offenses; 100 associated with rural born persons and 6145 associated with urban born persons.

Contingency tables relating place of birth to judicial events were then created, using packaged computer programs (SPSS).

FINDINGS

TABLE 1

PLACE OF BIRTH BY OFFENSES
ADJUDICATED BY BEXAR COUNTY, TEXAS
DISTRICT COURTS 1975-1978

PLACE OF BIRTH	NO.	P.C.
RURAL (1000 AND UNDER 1000)	100	1.6
URBAN (100,000 AND OVER)	6145	98.4
TOTALS	6245	100.0

Table one shows the percentage of offenses committed by rural and urban born. The fact that only 1.6% were committed by rural born is interesting in terms of the small proportion of the total. But more important is that one may interpret this to mean that urban centers produce their own criminals. The oft-repeated argument in the popular press that urban crime is the result of rural criminal elements contaminating urban areas is demonstrably not the case. Offenders tried in urban courts are urban born.

TABLE 2

OFFENSES COMMITTED BY RURAL BORN ACCORDING TO PROPORTION OF OFFENSES COMMITTED BY RURAL BORN, BEXAR COUNTY, TEXAS DISTRICT COURTS 1975-1978

UNDER PROP.	EQUAL TO PROP.	OVER PROP.
KIDNAPPING	ROBBERY	MANSLAUGHTER
RAPE & SODOMY	THEFT	ASSAULT
EXTORTION	DRUGS	ARSON
FRAUD		FORGERY
EMBEZZLEMENT		CRIMINAL MISCHIEF
FAMILY		SEX OFFENSES
COMMERCIAL SEX		GAMBLING
MISCHIEF		WEAPONS OFFENSE
ESCAPE		
BAIL JUMPING		
BRIBERY		
PUBLIC PEACE		
TRAFFIC		

Twenty-four types of offenses constituted the 6245 offenses committed. As can be seen in table two, there is an interesting division of offenses by place of birth of offender. The rural born is underrepresented in 13, about equal in three, and overrepresented in eight. The rural and urban born are proportionately represented in the types of crime that are most commonly adjudicated in the District County studied. Robbery, theft, and drug offenses represented 71% of the offenses adjudicated (4415 of 6245). It is in violent crime, manslaughter, weapon offense, criminal mischief, gambling, arson, forgery, assault and incestuous sex offenses and indecency involving children that we find the rural-born overrepresented. The bulk of these involve one-on-one violent crimes. The rural born are underrepresented in crimes associated with non-violent crime; extortion, fraud, embezzlement, bribery, escape, bail jumping, commercial sex--with several exceptions: kidnapping, rape and sodomy, family, mischief, public peace, and traffic which in some instances are violent or may involve violence.

TABLE 3

GRAND JURY STATUS OF OFFENSES
COMMITTED IN TERMS OF PROPORTION
OF OFFENDERS RURAL BORN, BEXAR COUNTY
TEXAS DISTRICT COURTS, 1975-1978

UNDER PROP.	EQUAL TO PROP.	OVER PROP.
Change of Venue	Waive Indictment	Reindicted
County Court Case Filed	Indicted	No Billed
Number Assigned		
Investigation Complete		

As can be seen in table three, rural and urban born defendents are similar in terms of the routine Grand Jury treatment--the bulk of both waive indictment and are indicted (59.2%) of the 6245 offenses. Twenty-nine percent are new cases with a number assigned but not yet brought to the Grand Jury. Of interest is the overrepresentation among the rural born in the no billed and reindicted categories. These rural born offenders more than urban born have their cases rejected by the Grand Jury and also have the District Attorney's Office then seek to indict the offender in a succeeding Grand Jury session.

A statistically significant age difference exists between the rural and urban born; mean age of rural is 40 years while that of urban born is 27 ($F=288.8$, $P<.01$).

The rural born also have had more contact with the police. They have an average of seven previous bookings (besides the current booking) compared to five for urban born. This is also statistically significant ($F=15.5$, $P<.01$).

The average sentence assessed is not significantly different, though the rural receive longer sentences (mean of two years six months compared to mean of two years one month for urban born).

The rural born is more likely than the urban to be denied bail, have bail reinstated, and to have it decreased (see table 4).

TABLE 4

BOND STATUS OF RURAL BORN OFFENDERS,
BEXAR COUNTY, TEXAS DISTRICT
COURTS, 1975-1978

UNDER PROP.	EQUAL TO PROP.	OVER PROP.
Set	Made	RWOB
Off Bond		Reinstated
Increased		Decreased
Forfeited		

Those adjudicated in these district courts had their cases disposed in 28 different ways. The bulk of all defendants pleaded guilty before a Judge and were found guilty (32%). The rural and urban born did not differ in this regard. The next most common way cases were disposed was by having the case rejected by the District Attorney (26%). The rural and urban born were proportionately represented in this disposition category. These two categories accounted for 58% of the offenses. The third most frequent category (24%) represented cases not yet disposed. This leaves 18% of the total offenses divided among 25 different types of disposition. Many categories are only represented by one or two offenses disposed. Only two categories had 100 or more offenses. In one the rural and urban born were proportionately represented (cases no billed). In the other rural were overrepresented; cases dismissed as a result of a guilty plea to a different charge. This represents plea bargaining on the part of the defendant.

Criminal defendants, among other events of the judicial groups, are arraigned (charges specified), have hearings of various kinds held (e.g., raise or lower bond, suppress evidence), are tried (before judge or jury), and are sentenced. Rural and urban offenders differ in all four of these events. In three of them (arraignment, hearings, and trial) the rural born delays the event by having the event reset while in the fourth (sentence) the rural born more than the urban born has the event take place on the date assigned.

The rural born (see table 5) are more White and Black than Mexican-American.

TABLE 5

ETHNICITY BY PLACE OF BIRTH,
OFFENSES ADJUDICATED IN BEXAR COUNTY,
TEXAS DISTRICT COUNTY, 1975-1978

	WHITE		BLACK		MEXICAN-AMERICAN	
	NO.	%	NO.	%	NO.	%
RURAL BORN	30	2.3	32	2.8	38	1.0
URBAN BORN	1298	97.7	1096	97.2	3751	99.0
TOTALS	1328	100.0	1128	100.0	3789	100.0

The rural and urban born defenders are proportionately represented in terms of sex and type of attorney representing them (appointed or retained).

Taken together, the rural born are disproportionate to their proportion of the offenses:

Older
Charged with violent crimes
More White and Black than Mexican-American
Jailed without bond
Repeater, who commit the same offense again and again
Booked more often by police
Able to delay judicial events

CONCLUSION

In this exploratory analysis of judicial case histories we sought to reveal the discriminating effects of having been born in rural as opposed to urban areas. The logic behind this enterprise was indirectly to substantiate or disconfirm the professional distinctions of a rural sociology, which we have argued presumes the existance of a rural mentality, a normative orientation that supposedly bears traces of our Gemeinschaft heritage, which differs from the social psychology of urban life. The firm social solidarity and conformity that supposedly characterize rural America were hypothesized to give one qualitatively different propensities toward deviance.

Upon examining the judicial records for an urban county in a rural region of Texas we found urban crime to be typically committed by the urban born. Even though the rural born felons were underrepresented, there appeared to be a pattern to the types of crime for which they are proportionately overrepresented: they are more likely to be charged with crimes involving violence, weapons, gambling, arson, and "criminal mischief" while being less likely to be charged with such non-violent, white-collar, "urban" crimes such as extortion, fraud, embezzlement, and bribery. The rural born offender was found to be older than his urban counterpart, more likely White or Black as opposed to being Hispanic, a repeater of the same offense, having a longer history of judicial encounters (and therefore more "court-wise"), and more likely to receive longer sentences and being denied bail.

EDUCATIONAL IMPACTS OF RAPID POPULATION GROWTH IN RURAL COMMUNITIES*

by

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INTRODUCTION

During 1970-1977, population of nonmetro areas in the U.S. grew by 9.3 percent compared with 5.3 percent for metro areas 1/ (U.S. Department of Commerce, 1978). These are the most recent data further confirming Demographer Calvin Beale's (1975, 1976, 1977, 1978) initial reports of a reversal in the long-standing trend of rural-to-urban population movement. A major factor contributing to "The Great Population Turnaround in America" (Schwarzweller, 1978:1) is migration away from the cities. Since 1970, net migration into rural areas exceeds two million people largely migrating from metro areas (Economic Development Division, 1978:6).

Little attention has been given to the consequences of the turnaround for communities undergoing change. Schwarzweller reasons:

> The consequences of migration and population redistribution are difficult to specify, of course. They involve not only population growth or decline and demographic disturbances *per se*, but they also have social, economic, and political dimensions that often seem to defy our most sophisticated regression equations--and seem to fall through the slats of our most elaborate theoretical models. Here then, I believe, is posed one of the great research challenges for rural sociologists (1978: 19).

In an attempt to begin filling this gap, our paper explores the consequences of the turnaround on social institutions, namely education. Consideration is limited to rural areas experiencing drastic and rapid influx of population.

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*Paper presented at the annual meeting of the Rural Sociology Section, Southern Association of Agricultural Scientists, New Orleans, La., February 1979. The paper is based on cooperative work between Educational Research Information Center, Clearinghouse on Rural Education and Small Schools, and Economic Development Division, ESCS, U.S. Department of Agriculture.

1/ Rates reflect population adjustments for areas changing from nonmetro to metro status through November, 1973.

The objective is to identify the primary and secondary impacts of rapid population growth on two rural school districts selected as prototypes of areas experiencing turnaround for different reasons. Case study scenarios of each of the two selected areas are developed and compared. Implications for rural development policy are drawn from the results.

FRAMEWORK FOR ANALYSIS

We will briefly review some of the turnaround research literature and draw on Bertrand's notion of confrontation due to rapid social change as a framework for our analysis.

Turnaround Literature

Both economic and non-economic factors are accounting for the new migration stream (Williams and Sofranko, 1978). In many areas, particularly the West and parts of Appalachia, growth stems from expansion in the energy sector including coal, gas, oil and other minerals (Beale, 1977). Another economic motivation for growth, especially in the South, has been the decentralization of manufacturing with many concerns establishing plants in small towns and rural areas (Beale, 1975). Expanding retirement, recreational, and educational development are also generating growth in many areas (Williams and Sofranko, 1978; Beale, 1975, 1977; Voth, et. al., 1979).

There is also a strong underlying non-economic basis for the new migration. Numerous studies are revealing that preference for the social amenities of life in small towns and rural places is a primary motivation for moving (Campbell et.al., 1977; DeJong and Humphrey, 1976, Ploch, 1978; Thomas and Bachtel, 1978; Voth, 1979).

Turnaround research indicates a general tendency for new migrants to be younger, better educated, and of higher socioeconomic status than native populations (Zuiches and Brown, 1978; DeJong and Humphrey, 1976). However, characteristics vary substantially by region, state and sub-state areas.

Effects of Turnaround on Rural Education Systems

What does the new migration mean for education? Bertrand (1963, 1966) argues that social systems (such as communities and social institutions) faced with rapid change tend to go through a stage of disorganization necessitating adjustments which have positive as well as negative aspects. On the other hand, in situations where change occurs gradually, there is time for accommodations to minimize the likelihood of disruption.

Change involving confrontation occurs in three stages (Bertrand, 1966): (1) awareness where recognition of the change occurs, (2) confrontation where the group is confronted with the necessity of adapting to new ways and ideas with adaptation involving both conflict and cooperation, and finally, (3) total accomodation to the change.

The new migration is a catalyst for rapid social change. The new metro-to-nonmetro stream is a force confronting rural communities and particularly rural educational systems with immediate problems of dealing with both large increases in students and with new ideas, expectations, values and behavior modes. One analyst studying the social impacts of nuclear energy plants writes: "the educational system can be one of the most severely impacted areas in communities experiencing rapid growth" (Greene and Curry, 1977).

New urban migrants who may be younger, better educated, with different values, attitudes and orientations toward education often become advocates for change which may disrupt prevailing social organization. Hennigh (1978) reports a prime example in the case of the rural Oregon community where rapid influx of urban migrants (quickly participating in organizations and local comunity decision-making) resulted in a taxpayer revolt against funding for schools. In rural Maine, better educated in-migrants not only supported improvements in education but also tended to vie for community participation typically by running for school board membership. However, conflicts occurred between newcomers and long-time residents over educational issues such as required reading in literature and the establishment of family life courses (Ploch, 1978). Conversely, when the migrants are primarily older retirees, effects for education may be of a different kind. Retired persons on fixed incomes are less prone to support bond issues and increased taxation for education (Voth and Danforth, 1978).

Our assumption is then that the consequences of rapid change in population for rural educational systems are determined by the unique interplay of demographic, economic, political and sociocultural factors.

Approach

From this backdrop, two school districts believed to be representative of energy and social amenities growth were chosen for case study.

The following general approach was used. (1) Extension staff, typically community resources development specialists at the land grant university, along with selected officials in state departments of education, were approached for basic data about schools and the communities and for an entree into the school districts. (2) In both instances, county extension agents supplied a list of key informants among school officials and community leaders who were contacted by mail to solicit their cooperation in the study.

In addition to obtaining basic information about the community, interviews centered around several areas of educational organization and functioning: finances, administration, staff, facilities, programs and curricula, students, and parent-school-community relations. Structured interview instruments were not used. Supplemental data consisted of statistics and material assembled from files, records, newspapers, and published sources.

EDUCATIONAL SCENARIOS IN TWO RAPID GROWTH COMMUNITIES

The following scenarios 2/ characterize the educational systems in two rapid growth rural communities. Reliance and Appaloosa, as we refer to our "prototype" communities, were purposively chosen because they were believed to exemplify different types of growth underlying the present metro-to-nonmetro migration turnaround.

Both communities are located in states west of the Mississippi. Since 1970, Reliance has experienced over a 50 percent increase in its county population (1 percent decline in 1960's), and county growth for Appaloosa has dramatically jumped by over 100 percent (2.6 percent increase in 1960's).

Reliance

General Setting

Reliance is a relatively small community of Anglo Americans (92 percent) in the South Central Region. The remaining 8 percent are mainly Hispanic with a small number of Blacks. Its population is estimated to be 6,879 (1978) having increased 16 percent between 1970 and 1978. However, the population of the county containing Reliance grew 50 percent reaching a population of approximately 14,000 in 1978. The increase is of particular concern to the Reliance school system which is the larger of only two school districts in the county. Intensifying the concern is the awareness that many of the newcomers are retirees, who may prefer services other than education.

The economic base of Reliance reflects four major realities: it is a county seat community in a sparsely populated general area; it is a supply center mainly for ranchers who produce livestock on pastures that receive an average of 30 inches of rainfall per year; and employment opportunities are scarce, being associated with a clothing firm (60 employees) and a feed mill (60 employees). A turkey processing plant, employing 190 people, was closed in 1976. Per capita income in 1974 was $3,182, up 38 percent from $2,301 in 1970. For a number of years, Reliance has maintained economic ties with a large military installation in a neighboring county. Reportedly, over 500 persons commute 40 miles daily to civilian jobs at the base.

The social base seems to be centered in church and school groups. Sixteen churches provide opportunities for the people of Reliance to interact frequently. An absence of theatres and youth-oriented recreational facilities likely enhance participation by youths of the church and school-sponsored recreational activities which are available.

The political structure of Reliance includes three major elements. First, county government is comprised of a County Judge and five County

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2/ For a more comprehensive study, see Ross and Green, 1979.

Commissioners, each having their own precinct and equipment. Second, it has a part-time mayor, along with a five-member city council. Third, there is a seven-member school board elected by place and serving three-year terms. The school board, comprised mainly of ranchers before 1972, now includes a lawyer, highway patrolman, female newspaper reporter, contractor, bookkeeper, service station manager, and the wife of an attorney.

Educational System

Reliance, larger by far of the two districts in the county, has one primary school with kindergarten through second grade, one elementary with grades 3 through 5, one middle school with grades 6 through 8, and one high school. Total school enrollment, excluding 100 kindergarten students, was 2,267 in 1978, up almost 40 percent from 1,626 in 1970. This increase has been accommodated without additional permanent structures.

Thus, a persistent major issue has been how to provide space for so many new students. This issue was temporarily resolved by renting the National Guard Armory in 1972 for a token annual fee, purchasing portable classroom buildings, and using auditorium and library in the high school building as classrooms. The Armory houses the kindergarten students and other special education classes. The high school building, constructed in 1955, was designed to accommodate 400 students but has 750 students at present. This is possible through use of the auditorium, library and a portable building for classes.

Revenue to operate the school system is almost $3,100,000, 1978-79 school year. Of this amount, approximately $800,000 comes from the local level, $2,000,000 from the State, and $300,000 from the Federal Government. 3/ This is a per pupil expenditure of $1,378.

The appraised value of real estate in the school district containing Reliance is estimated to be $85 million. Starting in 1978, the assessed value for support of schools is 68 percent 4/ of the base of $85 million, or $58 million. For school support, this is taxed at a rate of $1.50 per $100. At collection rates of 90 to 100 percent, this will yield revenue of $756,000 to $800,000. Appraisals have not been updated for for several decades.

3/ Reliance received aproximately $100,000 in Aid to Federally Impacted Areas under P.L. 874. Other monies are awarded under Title I, and Title I Migrant, Title IV.

4/ In the state containing Reliance, varying levels of assessment percentages and rates are made depending upon function. Revenue for the county is currently based on a 20 percent assessment rate and a tax rate of $0.75 per $100. Revenue for Reliance is based on a 25 percent assessment rate and a tax of $1.40 per $100.

School leaders increased the number of faculty members in 1978 to 142, up from 134 in 1976. The pupil/teacher ratio averages 25-30/1. Beginning salary level for teachers, ten month unit, is $8,540 following the state pay scale.

School-Community Relationships

From the perspective of the school administrators and teachers, persistent severe overcrowding has been the major problem. Students and staff experience daily frustrations of overcrowded science labs, libraries, dining rooms and hallways as well as use of space for unintended purposes and time needed to walk from one building to another.

It is not surprising that people in such a situation would be advocates of additional resources for the schools. On the other hand, those with new homes, retirees trying to live on fixed incomes, and ranchers trying to raise cattle with droughts occurring too frequently are believed to be less receptive to such pleas.

There have been two major attempts in recent years to get approval of bond issues to build new school buildings in or near Reliance. The first of these attempts occurred in 1972. Approval for issuance of $2.5 million in bonds for a new high school building and other related improvements was rejected 4 to 1. The last attempt was in May, 1978. Voters rejected by 3 to 1 a proposal for a $5.15 million bond issue mainly for a new high school building and a new elementary school building to be located in a nearby community.

Opposition to the school operations in another form was evident too. A citizen's group (many newcomers) had organized to express concerns about county services and tax inequities. A parent-based move was underway to transfer Reliance students living in one area of the county into the neighboring school district. If this happened the loss of the school district tax monies and the Federal Impact aid monies associated with these students would be serious. To resolve the issue of tax inequities, the school district, as an independent taxing unit, arranged for reassessment of property values.

Appaloosa

General Setting

Appaloosa originated from an 1868 mining camp (and others which followed) and flourished as a small industrial and trading center for a number of years. In 1970 the population was less than 12,000 in a county of 19,000. However, economic development in the form of coal and mineral activity has brought a dramatic influx of population increasing the town size by nearly 150 percent to an estimated 1978 population of 29,000. County population in 1978 is estimated to be 42,800, a growth of 132 percent.

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Today, Appaloosa is a virtual boomtown. The inmigrant workforce for four coal-generated power plants and other underground mineral mines plus all the associated service infrastructure resulted in initial severe strains on housing, utilities and essential service sectors (including schools). Trailer parks have replaced the tent camps, where many of the early wave of construction workers were forced to live. Over 80 percent of students at one elementary school live in trailer parks. However, there are indications that the new sewage and utilities facilities built to accommodate the boom have already been exceeded.

The economy is also booming. The county tax base has grown to a healthy $550 million. Over 75 percent of tax revenue comes from taxation on the industrial installations. Estimated per capita income as of 1974 was $5,358 compared to $2,938 in 1970.

The boom in Appaloosa has impacted the social life of the community. The quiet and slow pace of life centered around social activities in churches, schools and traditional groups has been drastically altered. The boom has brought "an entertainment strip" to Appaloosa, a short street of clubs and bars plus reports of drastic rises in crime and vice.

Educational System

Like Reliance, Appaloosa is the center for one of two school districts in the county. Appaloosa Independent School District includes four schools outside of Appaloosa: two K-6 schools located 7 miles and 40 miles away respectively, one K-8 school in a small community 60 miles away, and a K-12 school serving two hamlets 40 miles away. Eight elementary schools, two junior high schools and one high school are located in Appaloosa.

The effects of the boom on total school enrollment are dramatic, resulting in serious overcrowding and shortage of teachers. The number of students has jumped from 3,100 in 1970 to a present high of 5,200, a 68 percent increase. The number crunch was felt most keenly during 1972-73 when enrollment swelled by 500 students in a single year. To respond to the problem, school officials were forced into operating double-shifts at the junior high school, and busing students to reactivated classrooms at outlying schools. Hastily acquired portable buildings were also utilized until a school construction program could be undertaken.

Revenues for operating the school system total approximately $15 million (incuding a $1.9 million carry over) for the 1978-79 school year. The major source of revenue is local ($12.4 million) with $503,000 from the state, 6/ and $160,000 from the Federal government, under P.L. 874. This is a per pupil expenditure of $2,238.

Local and county taxes in 1978 for schools are applied as follows: county taxation on a base of $550 million at the rate of 12 mills,

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6/ Local revenue amount is based on a 91 percent collection rate. State funds are from state land income fund.

(or $1.20 per $100) which is proportionately distributed between the two school districts. Property tax base of $371 million in the school district is also taxed at the rate of 25 mills, or $2.50 per $100. These bases yield $4 million and $8.4 million respectively for total local revenue of $12.4 million. Approximately 75 percent comes from industry and the remaining 25 percent from real estate.

Voters approved total bonds of $11 million for school construction and other improvements in 1973 and 1974. In addition, school districts were given permission through special voter referendum to accumulate $1 million per year of surplus revenue for five years for capital improvements. As a result, one junior high school and two elementary schools had been constructed with a third projected for completion in 1979. Approved capital expenditures also provided for other renovations and improvements of existing structures.

A healthy economic status enabled the school district to hire more and better qualified teachers. In 1978-79, salary for a beginning teacher was $11,100 plus retirement, and life and health insurance benefits. In addition to special education teachers, the present staff provides a comprehensive range of supportive services: Counselors, psychologist, speech therapist, occupational therapist, nurses, music teachers, social workers and others.

The boom brought about a rise in social problems among the student body which officials felt were attributable to conditions associated with the growth. Among these were increased truancy, rise in dropouts, increase in alcoholism and drug use among students, and a host of family-related problems including a dramatic rise in child abuse.

School-Community Relationships

Voter support for school construction is one example of the good relationships between school and community. The school district reciprocates by making its facilities available to the community for recreation, civic, and public affairs. School officials reported that the school-city-county relationships are mutally beneficial.

A state community college located in Appaloosa plays an important role in enhancing school-community relations. The program at the college offers post-secondary credit and noncredit education for all age ranges. Wives of industrial workers take academic or special interest courses with free child-care available to them while Appaloosa high school students take selected courses for joint high school/college credit free-of-charge. These opportunities for continuing education may be a factor in developing a pro-education attitude among Appaloosans.

DISCUSSION

Our paper explores the consequences of rapid population growth on rural education systems. Bertrand's confrontation theory posits that social systems experiencing rapid change will go through a stage of adaptation to the change marked by some social disorganization. Appaloosa and Reliance are two communities confronted with the strains of rapid social change from drastic shifts in population. The process of adaptation is different in each case, with the adaptative capacity influenced by economic and social factors operating in the larger community arena.

Adaptation in Reliance, the community lacking economic growth commensurate with population growth, appears to be weighted more strongly with elements of conflict than cooperation, at least in the short-range. The educational system had been severely impacted by an increase in students far exceeding the physical and staff capacity of the schools, and attempts to find solutions to the problems were generally unsuccessful. Possible long-range gains may be realized through citizen groups contributing to a new and perhaps stronger base of local leadership. For such a leadership to unite in favor of improved schools could benefit the educational sytem. Also, as carriers of diverse attitudes, values, and behavioral and cultural traits, the newcomers open the doors for greater social pluralism in the community.

The balance in Appaloosa, on the other hand, appears to have tilted toward the positive aspects of change. The stronger economic base, has facilitated the creation of improved facilities, a stronger school program with more qualified faculty and supportive staff. Growth had brought a rise in social problems but also a more cosmopolitan outlook among Appaloosa students as they were exposed to new ideas and behaviors. An unanticipated long-range consequence of the turnaround for Appaloosa may be the strains on a fragile and limited natural environment.

The initial impact of the turnaround on the educational system was student overload. However, the growing economy in Appaloosa coupled with good school-community relations enabled the officials to handle the overcrowding problem more rapidly and effectively than Reliance. The unwillingness of the Reliance voters to bear increased taxation for schools led to unsatisfactory stop-gap solutions to overcrowding, creating greater dissatisfaction and negative attitudes among community members--a vicious cycle set-in-motion.

While Reliance continues to be faced with severe overcrowding problems, it has not been impacted by noticeable changes in social problems among students. This may be attributed to the sheer magnitude and breadth of growth in Appaloosa where impacts of growth extend far past schools into all functional areas, public and private, of the community.

Implications

A critical issue is the extent to which community leaders can anticipate and respond to population growth and its resultant changes which may extend over at least two decades. The penalty for substantial underestimation is the construction of facilities (such as schools, housing, sewage disposal plants) which are realized to be inadequate just as they are completed. On the other hand, overestimation may result in facilities which are neither needed nor utilized and debts which cannot be paid.

The underestimation and underresponse were very evident in almost all functional areas (including education) in both study communities. In Appaloosa, construction of the proposed new high school was not started, the new sewage plant nearing completion was already outmoded even for the present population, and the recently completed hospital was too small. School officials in Reliance responded to severe overcrowding with momentary, stop-gap solutions, and community and county officials were taking no apparent steps to avoid a multitude of potential problems stemming from housing developments. The implication is that substantial economic and social costs can be avoided if planning for expected growth occurs early in the growth process.

A related implication pertains to who should assume responsibility for planning and responding to rapid population growth. Is it reasonable to expect local officials and leaders to bear all of the costs associated with development of energy resources essential to national stability? One position is that national investment in special types of assistance is justified since social costs are large and concentrated within small areas.

Should policymakers decide that special types of assistance should be given to communities impacted by rapid growth, assistance could be in the form of either loans or grants for construction of community facilities, for provision of specialized services (social welfare, health) and for general planning. The availability of loans could enable communities like Appaloosa to respond to growth needs before the time-lag when the tax base is increased from new sources of industrial revenue. In situations like Reliance where growth does not bring increased local monies, grants and/or low interest loans could provide for the construction of schools and other facilities. Grants for planning could facilitate more accurate estimates of population growth and formulation of alternatives to cope with such growth. They could also help reduce the incidence of expensive retrofitting of public facilities.

An effective planning program requires that communities interact well with state and national bureaucracies (public and private) as well as local interest groups. Interactions among those groups can help to discern the degree to which rural social organization is able to adapt to change brought about by "The Great Population Turnaround." A key aspect of adaptation is the identification of which aspects of change are fixed and inalterable (see Warren, 1963) and which ones can be controlled through programs and policies of planned change. A sense of the ability and willingness to adapt is imperative to rural development policies and outcomes.

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Session 4

The Sociology of Incendiarism

"Evaluating Forest Fire Prevention Programs: A Case Study in the Adequacy of the Simple Pre-test - Post-test Design". S. Renee Rigsby and Arthur G. Cosby, Texas A & M University, and G. Richard Wetherill, Southern Forest Experiment Station.

EVALUATING FOREST FIRE PREVENTION PROGRAMS: A CASE STUDY IN THE ADEQUACY OF THE SIMPLE PRETEST - POSTTEST DESIGN*

by

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Introduction

This paper focuses on a critical assessment of the utility and adequacy of the pretest - posttest design in an evaluation of a selected forest fire prevention program. It is the first in a series of case studies on forest fire prevention evaluation that seeks to identify those approaches and components of approaches which can realistically be applied to the forest fire prevention area (Cosby, et al. 1978). As such, it constitutes a limited exercise in what is becoming known as meta-evaluation (Cook and Gruder, 1978). Through a critical study of extant evaluation methods, we seek to make judgement, about the merits of evaluation strategies in terms of two broad goals. The first of these focuses on the traditional research oriented capacity of an approach providing reliable and valid information about the programs successes or failures in meeting goals. The second focuses on those evaluation approaches ability to generate information that can lead to program improvement, adaptation, or refinement.

The distinction between evaluation approaches that emphasize program effectiveness on the one hand and program improvement on the other is hardly novel. Evaluation literature is replete with conceptual treatment that approximate this important distinction. Carol Weiss's (1972) Evaluating Action Programs, bear out this observation. Such noted researchers as Suchman, Campbell, and Rossi present strong arguments for the program effectiveness approach while Scriven and Guba point to advantages of stressing program improvement.

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The program effectiveness model is probably best exemplified by a strong adherence to standard scientific methodologies and in many cases by a preference for experimental models. It tends to view program evaluation as an exercise in experimental design where the program or its parts are viewed externally as experimental treatments and the program output as dependent variables. Importance is placed upon techniques that can be used to control extraneous influences in order to add validity to the potential cause and effect relationships leading to program outcomes. Its appeal seems to lie in the familiarity and respectability gained by using standard scientific procedures. That is to say, evaluation research is a form of scientific research and therefore should conform to the cannons of scientific methodology. Critics of the program effectiveness approach point to a series of problems in addition to the obvious difficulty of conducting experiments in most meaningful social situations. Among these is the charge that this approach tends to treat the program as a constant rather than an object of facilitation and improvement; its utility for decision making emerges only after the program has run its course rather than in the planning or implementation stages.

The program improvement emphasis tends to place less stress on scientifically gained information. Its application is generally predicated on the view that users of evaluation information are best served by:

> 1) a comprehensive description of how the program actually functions and (2) feedback about the attainment of the programs objectives, about unexpected results of program efforts and about the relationship of program functions and the attainment of objectives at continuous points during programs course, rather than after program termination.
>
> (Flaherty, 1978).

This emphasis is well attuned to managerial demands for program change and decision-making internal to the program. Critics of this approach tend to focus on the usual lack of controls and the dynamic nature of the program resulting in a lower quality of information about program outputs.

In addition, review of literature on program evaluation will reveal a plethora of so-called evaluation models, that tend to intersect at different points with the program effectiveness and program improvement emphases. For example, Cosby and Wetherill (1977) have identified more than fifty labeled "evaluation models". Although they feel that these can largely be synthesized by recognizing that most share a set of common underlying processes, it does appear that a number of approaches, perhaps techniques, are in competition. This, a considerable part of our task is to locate within this matrix of evaluation emphasis and types, those approaches, emphases, and techniques that appear most amenable to evaluation needs of forest fire prevention programs.

Evaluation and Forest Fire Prevention Education

In recent history, forest fires have constituted a major and stubbornly persistent threat to the valuable forest resources of the United States.

Each year millions of acres of forest in all corners of the nation are destroyed by fires (Forest Service, 1977). A review of forest fire statistics clearly indicate that fire occurrence especially in the South can be traced to certain types of social behavior. Primary among these are incendiary, debris burning, and smoking. It has been estimated that about 84 percent of the acres burned in the Southern United States between 1972 and 1976 can be attributed to these three "social behavior" causes (U.S. Forest Service, 1977;47). From a comparative perspective, incendiarism is especially critical for the South where incendiary fires account for 55 percent of the loss. These figures are especially appalling when it is considered that incendiary fires are by definition deliberately set on someone else's property.

Program Selection

In the selection of a program for the first case study, we desired to obtain access to a program of the aforementioned "middle range" type. Forest fire prevention education encompasses a broad spectrum of approaches and activities. These range from mass media educational approaches to face-to-face personal contact approaches. These two extremes have received the most attention in terms of documentation. "Middle range" programs fall somewhere in between these two extremes. This indirect approach appears to hold promise for transmitting effective fire prevention communication since it may combine the efficiency of the mass media approach with the effectiveness of the personal contact method (Wetherill, 1977). It is argued that this less popular approach enables fire prevention messages to be presented in intensive blocks of time to groups of people in numerous settings (e.g. school classrooms, community organizations, workshops, etc.).

Case study summaries are presented in the subsequent blocks. Description of the evaluation has been roughly ordered in terms of the Context of the program, Inputs, Process and Products as well as evaluation design.

Prgram Context (1)

The program selected for evaluation was a summer youth camp, designed to interest youths in the area of general forestry knowledge. The annual week-long camp, labeled the Texas Forest Resource Shortcourse, was conducted by the Texas Forest Service in conjunction with the Texas Forestry Association. The camp met during the week of June 26 through June 30, 1978 at Wilks Lodge, near Avinger, Texas. The stated purpose of the five-day shortcourse was to "introduce Texas youths to concepts of total resource use" (Texas Forestry Association, 1978). To accomplish this objective, field and classroom demonstrations were used in combination with the teaching expertise of forestry specialists.

Although this program has been referred to as a camp, it appeared to be closer to an academic course stressing forestry maintenance and protection. The boys attended classes throughout the week and were required to pass a comprehensive test at the end of the session in order to receive a passing certificate. This certificate enabled the boys to complete boy scout badges and improve on requirements in selected 4-H and FFA programs. Some of the topics studied were tree identification, forest wildlife, forest pests, forest recreation, economics of forestry, and forest fire prevention. Each topic was taught by a professional in that particular area. (professors, foresters, wildlife researchers, forest service personnel, etc.).

Program Inputs (2)

A total of 65 boys age 13-15 attended the shortcourse. Upon arriving at the camp the boys were divided into three groups: the oaks, the pines, and the willows. Each boy remained in the group throughout the week and attended all scheduled classes with his group. Unfortunately, this system of grouping was not known to the research team prior to the evaluation. Each boy was also assigned a local sponsor during the orientation session who paid his fee for attending the course. Typical sponsors were banks, industries, and other interested groups usually from the same local as the student.

The organization of the curriculum was handled by the Texas Forest Service. Camp personnel included both counselors and instructors. Counselors were primarily volunteers from the Forest Service who lived at the camp during the program and supervised the campers day to day activities. Instructors were drawn from a number of backgrounds (Forest Industry, University Professors, as well as, personnel from the State Forestry Agency). Their primary responsibility was for the conduct of scheduled class presentations and demonstrations. Both counselors and instructors were volunteers.

Since the enrollment was limited to 80 boys, the selection of students was handled by local 4-H instructors, boy scout leaders, and vocational agriculture teachers from throughout the 25 represented counties. The selection was manifestly based on age, physical condition, displayed ability, good scholastic standing, and some interest in the field of forestry.

Study Design

Early in our negotiation with the administration of the shortcourse it was decided that a pretest-posttest design was to be constructed as the mechanism for evaluation. This decision met the needs of the camp organizers since it would provide base-line information about forest fire knowledge and attitude levels of students entering the shortcourse as well as comparable information at the end of the course. Their initial concern was for information about possible increases in knowledge and attitude change. For purposes of the meta-evaluation, the decision was attractive since the pretest-posttest design is a commonly used approach in evaluation that clearly is consistent with one of the major orientations toward evaluation--the program effectiveness emphasis.

Hence the study design was a simple pretest-posttest quasi-experiment (Campbell and Stanley, 1957). In such a design each student in the shortcourse was administered an identical questionnaire at both the first orientation meeting, and just prior to leaving the camp. The students were told that it was not a test, and to respond to what they thought was the best answer.

During the posttest administration, students were informed that they again were being given the same questionnaire and that they did not have to put the same response as they "now" felt about the knowledge and attitude items. Although the questionnaire was not administered in a "test" atmosphere, care was taken to insure privacy of answers. A twenty minute time limit was also used which appeared ample for the majority of students. The few who did not finish appeared to have reading problems.

The questionnaire was an adapted form of a recent instrument developed by the Berkely Forest and Range Experiment Station (Folkman, 1970) for a telephone survey of Los Angeles and San Francisco. While maintaining the original survey questions on knowledge and attitudes, we eliminated the obvious issues relevant only to California.

The knowledge segment of the test was divided into three categories in order to better synthesize the results. The three categories were: common fire safety practices, misconceptions concerning forest fire knowledge, and basic forest fire knowledge. "Common fire safety" questions dealt with issues such as when should one use matches and how to properly extinguish a fire. Questions included in the "misconceptions" category were more difficult for most the the respondents because they included less advertised fire prevention practices. This category included questions such as: how does the sun's heat effect forest fires; and what type of vegetation is most likely to start a forest fire? The third category was labeled "basic fire knowledge" since it included questions about peak months for forest fires and the major causes of most forest fires in Texas.

The second half of the evaluation criteria measured the degree of attitudinal changes toward forest fires. Much like the knowledge segement, the attitudinal questions were grouped into categories to enable a more concise synthesis of results. These areas were: personal salience of forest fires, impression of the seriousness of forest fires, attitudes toward wildland rules and regulations, attitudes toward persons displaying high fire risk behavior, and attitudes toward governmental agencies responsible for wildland management. The "personal salience" category included questions such as how often does one think of the dangers of forest fires and how does one react to an unattended campfire or a careless smoker. The second category measured ones attitude towards the seriousness of forest fires. The category of "attitudes toward wildland regulations" included such questions as: are regulations too strict and should everyone be forced to comply. The fourth category asked questions concerning how would one react to someone acting careless and what should the penalty be for starting a fire. The "attitudes toward governmental agencies" category included questions on the effectiveness of governmental personnel in taking care of forests and wildlands.

Program Process (3)

Since the only direct observation and measurement was conducted at the beginning and at the end of the course, little information was obtained concerning actual program activities. That is, there are no actual data collected on what was taught, how much time was allotted to forest fire prevention, what materials were available, etc. Based on indirect information from camp Directors and from the written camp curriculum, only the basics of forest fire prevention were covered. Included were topics such as dangerous weather conditions, the fire triangle, percentages of human started forest fires, and fire safety procedures. Only one hour, (one scheduled class) was allotted to this endeavor.

Percentages were computed for the responses to each item, for each cluster of items, and for the overall knowledge items. Comparisons were then made between pretest and posttest results. For convenience of analysis, a ten percent difference in percentage response was considered to represent change in the variable measured. If the percentage difference was less than ten percent the indicator was judged stable.

Program Product (Knowledge) (4)

Generally speaking, "misconceptions concerning forest fire knowledge" showed the least amount of change, "common fire safety practices" were next and "basic fire knowledge" had the highest degree of change. Approximately a ten percent increase in knowledge was noted between the pretest and posttest. The ten percent increase in average knowledge scores indicates some general improvement in knowledge; however a cautionary caveat should be injected. The initial score was fifty-two percent correct, which of course meant there was room for considerable improvement in scores. That is to say, the ten percent increase represents only about one-

fourth of what was possible within the constraints of this evaluation method.

The attitudinal segment of the test was analyzed somewhat differently from the knowledge segment. Obviously there was no "correct" answer; therefore it was necessary to subjectively designate the "preferable response", which was used in the tabulation.

Program Product (Attitudes) (4)

The category regarding personal salience showed little change between the pretest and posttest; the only substantial increase was in the question where respondents agreed more profoundly that it bothered them to see people smoking in a forest during the dry season. Attitudes towards one's impression of the seriousness of forest fires did show some change in several questions. This category's responses could be summarized as: there is a general feeling that forest fires have increased in Texas, they can be a danger, but they can also be beneficial if controlled by governmental agencies. The third category, attitudes toward wildland rules and regulations, remained fairly stable. The respondents appeared to be in agreement that rules and regulations were necessary for forest fire prevention, and in some cases they needed to be enforced even more rigorously by the forest rangers. The category depicting attitudes toward high fire risk behavior showed almost no change. Generally speaking, respondents indicated in both tests that those who start forest fires, even accidently, should be punished. In the last category, the results overwhelmingly indicate that forestry agencies appear to have retained a relatively high level of credibility. All of the questions in this category showed an increase in the "prefereable response". In essence, the respondents appeared to be impressed with the job agencies were doing. In terms of the criteria for attitudinal change, there was generally less change observed than in the knowledge segment. With the exception of orientations toward fire prevention agencies, most of the measured attitudes were formed apart from the educational program and were generally resistent to the efforts of the program.

Section Implications

In the preceeding pages, we have presented a general overview that attempts to describe our evaluation of the Texas Forest Resource Shortcourse. This description has been organized in such a manner to reflect two philosophical orientations in the general area of evaluation research. The first of these distinguishes evaluations conducted essentially for program effectiveness as contrasted to evaluations conducted for program improvement. The second reflects the position that a complete understanding of an evaluation requires at a minimum, information about program context, program input, program processes, and program products.

Our stance is that an assessment of an evaluation, hence an exercise in meta-evaluation, can be made using this framework as a basic for judging overall utility of research.

Summary Chart I assesses the degree to which evaluation information addresses either program effectiveness or program improvement at each of the four phases. It should be stated that the actual evaluation of the Texas Forest Resource Shortcourse was conducted prior to the development of this framework. Therefore no systematic attempt was made to collect the types of information specified by the framework in Chart I. Rather, our goal was to conduct what we viewed as a standard pretest - posttest evaluation of the project with little concern that it meet the more general type goals set forth for evaluation.

The analysis of the context phase of the program's evaluation is somewhat artificial and in fact, represents a very atypical backdrop for evaluation research. That is, the motivation for conducting the evaluation of this particular shorcourse did not reside in the Texas Forest Service, instead it was primarily based in the researchers desires to locate fire prevention programs (with willing administrators) as subjects for a series of case studies and approaches to evaluation. Therefore, we are unable to relate any "inside information" such as, the desire for evaluation was motivated by a need to "justify existence of program", "meet a governmental edict", or "to establish a research justification for terminating program". The context was simply that we needed programs to experiment with, and that the Texas Forest Service was willing to provide this program in exchange for information about its utility.

In terms of program inputs, the pretest-posttest design provided fairly extensive information about the knowledge and attitudinal inputs of the students entering the program, and as a result was considered as being quite satisfactory in providing this type of program effectiveness information. However, in terms of other program inputs, especially those that would apparently have most to do with programatic change, either indirect sketchy information was obtained, or in most cases, no information was collected. The input column details types of possible investigations that were not conducted. It is our impression, in retrospect, that our failure to collect information about program inputs resulted in part from the type of design we were using and in part from our orientation and training in "standard scientific methodology", which seems to emphasize concerns more akin to the goal of program effectiveness.

The most obvious gap in our study was the almost total lack of information about program processes. We have no direct observation concerning the actual application of the program, since the simple pretest-posttest design treats the program as a constant. Although the assumption of constancy is permissable for many purposes (especially those dealing with effectiveness), it is almost of no utility for program improvement. The counter contention is that the program is a composite of numerous variables, with a continuum of results from positive to negative. Had we been sensitive to and operating from, the second perspective, research efforts would have been devoted to sources of variation in program, the dissection of program components, and most likely, an effort to relate these to variations in product.

Of course, considerable information about program products (attitudes and knowledge), was produced. We were able to advise the Texas Forest Service as to those knowledge areas that showed improvement after the course was completed, and those areas which appeared unaffected. We were also able to identify those attitudes, and cluster of attitudes, which seemed subject to change in this shortcourse environment. We are aware that knowledge and attitude change represent only a substitute or short-run criterion of success. Any forest fire prevention program would better be judged by adoption and use of prevention practices, and ultimately in the long-run, the actual reduction of forest fires. In light of the near impossibility of collecting this type information, and then validly relating it to a single shortcourse, the knowledge and attitude information appear to be the best available indicator of program effectiveness. It would have been useful in our recommendations to The Texas Forest Service, if we could have pointed to types of inputs and types of processes that, if increased, would most likely enhance future shortcourses.

In summary, the before-after approach was found to be useful for estimating program effectiveness in three ways: by providing extensive information about student knowledge and attitudinal inputs, student knowledge and attitudinal products, and the dynamics of these variables during the course. However, little program improvement information resulted from the research. Consequently, we were greatly restricted in our ability to make specific recommendations to the agency. Our task now, in a future paper, will be to conduct a contrasting second evaluation which emphasizes program improvement.

SUMMARY CHART I

CONTEXT		INPUT	PROCESS	PRODUCT
The evaluation of the Texas Forest Shortcourse was originated by the researchers as an exercise in meta-evaluation. There was no demand originating from the Texas Forest Service or the Shortcourse administrators for an evluation directed toward either program effectiveness on program improvement. Hence, the meta-contrast for this phase of the evaluation is inappropriate. During the initial negotiations however, it did seem that the administrators were voicing concerns primarily on the issue of program effectiveness--how much were youth learning? Did their attitudes change? In terms of historical context a considerable amount of information was collected concerning past courses from in-house documents and interviews with forestry personnel. Little of this historical context information seemed to bear directly on either the effectiveness or improvement issues.	Utility of knowledge Produced for program effectiveness.	The pretest aspect of the design provided fairly extensive information about the knowledge levels and attitudes and viewpoints that the students brought to the shortcourse. Little information was obtained relative to their social origins and experience with forest fire problems either in terms of individual experience or in their community of origin.	No interim measures of effectiveness were conducted.	Substantial amounts of information was collected on program products in terms of the levels and change in knowledge and attitudes. No long-run information was collected that directly bears on the actual reduction of forest fires(a task that the researchers deemed impossible based on such small-scale programs).
	Utility of knowledge Produced for program improvement.	Indirect information was obtained concerning the selection of boys for the shortcourse, to include where they came from, who selected them, and who provided financial support. Comparable information on the recruitment of instructors and counselors was not obtained. No information was available on the expenditure of resources in terms of money, or in terms of time that was designated to the overall shortcourse or, to the fire prevention segment; with the exception of the course program. No information was collected concerning the types of materials used to assist in the forest fire prevention section.	No information was collected on the actual utilization of resources. For example, there was no direct observation or recording of money, time, or materials devoted to either overall shortcourse or fire prevention section. No assessments of instructors effectiveness.	Information for improvement was generated by first pointing to those areas of knowledge and attitude that were subjectively evaluated as not being of desirable level or that the course did not seem to change. The recommendation was that for those areas needing improvement they should receive additional attention in future programs. Since practically no information was available on program inputs and processes, it was impossible to directly link these with variation and desirable products. Consequently, there was not a strong research base for making recommendations concerning which aspects of programs could be altered for improvement.

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Session 5

Rural Housing

"Reasons for Moving and Housing Changes Among Blacks in the South and Other Regions". Sam T. Davis, III, University of Georgia.

"Characteristics Found Among Claiborne County Households as They Relate to Household Equipment". Alfred Stewart, Alcorn State University.

REASONS FOR MOVING AND HOUSING CHANGES AMONG BLACKS IN THE SOUTH AND OTHER REGIONS*

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INTRODUCTION

This paper presents some findings on the characteristics and situations of Black household heads who have recently moved and on the reasons they give for moving. "Recent movers" as they are identified here are household heads who, according to the 1975 Annual Housing Survey, moved into their residences within the preceding 12 months. The focus is on the characteristics of Black recent movers, including 1) the sex, age, education and income compared with all Black household heads, 2) their reasons for moving by the above characteristics, and 3) changes in certain housing situations. The housing changes examined are tenure status, persons per room (a measure of crowding), and rent and property values for persons remaining in the same tenure categories. Rather than rural, all Blacks are considered, as an overwhelming proportion, almost 85 percent, lived or moved entirely within metro areas. It is hoped that some of the information presented will be of interest to persons concerned with motivations for migration and associated housing changes among Blacks.

DATA SOURCE

The data for this study came from the 1975 Annual Housing Survey, conducted by the Bureau of the Census for the Department of Housing and Urban Development, (U.S. Bureau of the Census, 1977). The survey had about 62,000 occupied sample units which represented an expanded national total of 72 million households. In this paper, attention is focused on Black recent movers in households which had the same head in previous and 1975 residences. Of the approximately 10 million recent mover household heads of all races, nearly one million, or 10 percent, were Black, almost precisely the same percentage as Black household heads were of the total.

CHARACTERISTICS OF RECENT MOVERS

About four-fifths of the household heads who had moved in the 12-month period prior to the 1975 Annual Housing Survey were males and one-fifth females. This compares with three-fourths and one-fourth in the nation as a whole, nonmovers as well as movers. Among Blacks, a much higher proportion of of the heads are females, 35 percent for total and nearly half for recent movers.

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* The research on which the paper is based is being conducted under Agreement No. 12-17-09-8-1663, between the (former) Economic Research Service, US Department of Agriculture, and the Institute for Behavioral Research, University of Georgia.

Black movers are, as would be expected, younger than all Black household heads. The medians were 33.2 compared with 38.3 years. Just as recent movers are younger, they tend to be better educated than other Black household heads. About 60 percent of the recent movers had graduated from high school, while only 46 percent of the total had done so. In the South, only 45 percent of all Blacks had graduated from high school compared to 55 percent for the non-South. This gap is considerably narrower for recent movers, as 58 percent of the Southern Blacks were high school graduates and 62 percent of non-Southern movers had graduated. The median income of recent movers ($6,600) was about the same as for all Black household heads ($6,800). This unusually low income for movers is due to the inclusion of female heads of households, who make up almost half of this group. The median for Black males was $9,700, more than twice that of females ($4,100), and that for Southern males ($9,200) was lower than that for males in other parts of the country ($10,300).

REASONS FOR MOVING

For those not familiar with the Annual Housing Survey, I have reproduced the section of the schedule dealing with reasons for moving (Figure 1). When considering responses to the question concerning reason for moving, and the discussion below, it is necessary to bear in mind the manner in which it was asked. The question reads "What is the main reason . . . (head) moved from his previous residence?" All reasons were to be listed, and the main reason marked. Only the main reason was coded and is available on the data tapes. A result of this is that it is very likely that a portion of the individuals coded as reporting family or housing reasons also considered neighborhood or employment reasons important. This may account for the high percentage of housing and family responses as compared to the small percentages of neighborhood reasons reported.

For analytical purposes, responses to the question concerning reason for moving were grouped into five categories. For the first two, I followed the Census groupings on Figure 1. Employment related reasons included job transfer, entering or leaving the armed forces, retirement, new job or looking for work, commuting reasons, school, and others. Family reasons involved needing a larger house, becoming widowed, separated, or divorced, moving nearer relatives, newly married, family increased or decreased, wanting own household, and others. The third collection contained the housing reasons from the Census "Other" category, such as wanting to own or rent a residence, and such things as wanting lower rent, a better house, and more conveniences. Neighborhood reasons make up the fourth category, and they include overcrowded neighborhood, race or ethnic change in neighborhood, wanting better neighborhood, urban renewal and school. Displacement by natural disasters or private action and change in climate were grouped with all other reasons to form the final group.

Approximately one-quarter of all recent movers gave reasons for moving falling in each of the following categories: employment, family, and housing. Only about 10 percent of Black movers gave employment reasons, however, while housing reasons were reported by almost a third. Neighborhood reasons were given by 8 percent of all newcomers but nearly 13 percent of Black recent movers gave these reasons. The percentage of movers responding with family reasons was about the same for Black movers as for the total (27.6 and 26.1, respectively). (Table 1 contains all the figures concerning reason for moving).

The low proportion of Blacks who gave employment reasons is in part due to the fact that nearly half of the Black movers are women. Only 5 percent of them gave employment reasons, 37 percent gave housing and slightly over 20 percent gave other reasons, including displacement by private action or natural disasters. Black males also were low in giving employment reasons, 13 percent, thus contributing to the overall low percentage for Blacks in this category. Black women are more likely to move due to housing reasons, but Black men indicate family reasons more often, possibly relating to their movement associated with divorce or separation.

Age

Median ages did not differ significantly from one reason group to another, but there were a few interesting differences in the age structure of recent movers in the various categories. Only about 30 percent of the movers giving neighborhood reasons were 25-34 years of age, while about 40 percent of each of the other reason categories (employment, family, housing) were in this age group. Higher proportions of those giving housing and neighborhood reasons were in the 35-64 year age group than for those giving employment and family reasons.

Education

Those movers indicating reasons for moving related to employment had the highest percentage (70) of high school graduates. The groups with the lowest proportion of high school graduates were those giving housing (57) and "other" reasons (53). In the South the family reasons group is almost as low as the housing group (55 versus 52 percent) while for the rest of the U.S. the other reasons category is lower (47 percent) (Table 2).

Income

While the median annual family income for all Black recent movers was only slightly less than the income of all families with a Black household head, movers giving certain types of reasons for moving showed median incomes falling in a rather wide range. The highest income was obtained by those moving for employment reasons. This is reasonable, since an important factor in considering moving for employment reasons is the possibility of a larger income. Unfortunately, we do not have information concerning income prior to moving.

As with education, individuals indicating employment reasons had nominally the highest median income, $8,600 (Table 3). This was significantly higher than the two lowest reason groups, those giving housing reasons, $5,900 and those reporting "other" reasons, $4,900. Although the median incomes of those for whom either family or neighborhood reasons were most important, $7,800 and $6,800 respectively, were somewhat lower than that for the employment reasons category, there were no significant differences in median incomes among these three groups.

HOUSING CHANGES

One of the important objectives of the Annual Housing Surveys is the provision of continually updated information on the U.S. housing inventory and related subjects. Items on the data tapes permit the examination of many indicators of housing quality for the entire population, and for recent movers, a comparison of their previous and current situations.

Change in tenure status, property value, monthly rent, and crowding (measured by persons per room) are the factors used here to obtain an idea of changes in overall housing quality associated with residential movements of Blacks. There are problems with using values or rents to measure housing quality. Inflation is one of these factors as it affects the comparability of property values or rents between previous and 1975 residences, but the recent nature of the moves lessens the problem to some extent. Also there is the question of whether Blacks receive equivalent quality of housing for the same amount of money as whites. This is discussed in several works (McEntire, Stengel, Struyk, and von Furstenberg _et. al._) and will not be dealt with here. In addition, the size of the AHS sample limits analyses that can be made.

Tenure Changes for Reason Groups

In 1975, about 65 percent of the dwelling units were owner occupied, with ownership among Blacks (44 percent) significantly less than that of whites (75 percent). The restrictions that home ownership places on migration (and vice versa) are well known. The proportion owners among Black recent movers was only 20 percent, again less than that of whites.

Property Value

There were only about 105,000 Black recent movers who owned both their previous and 1975 residences. Thus, reasons for moving cannot be dealt with here as sub-totals are so small that no meaningful statements can be made about figures derived from them.*

According to published AHS data, Black recent movers had a higher median property value ($24,100) than for all Black owners in general ($18,900). Although precise figures cannot be cited because the numbers reporting information are too small, it appears that 1975 property values were considerably higher on the average than dwelling units occupied previously by recent movers.

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* Derived numbers are not cited if the base is less than 75,000.

Monthly Rent

Rent is also affected by inflation, making it difficult to determine whether increases are due solely to that factor or may be indicative of changes in housing quality. Moreover, for most cases of Black household heads who rented both their previous and 1975 residences, the standard errors of the median rents are too high to make any statement concerning significant differences between previous and 1975 monthly rent. The median 1975 rent for all Black household heads was $126, while movers alone had a slightly lower median monthly rent, $119 (Table 4). Previous monthly rent for movers was $107. The only significant increase in median monthly rent occurred in the group of households who moved for neighborhood reasons, from $103 to $134. This was also the group with the highest 1975 median monthly rent. The lowest 1975 median rents were paid by households giving housing reasons for moving, $108, and those giving family reasons, $110.

Persons per Room

Another housing characteristic that was examined is persons per room for both previous and 1975 residences, as this is a measure that is often used as an indicator of housing quality. The number of rooms includes whole rooms used for living purposes, excluding bathrooms, halls, foyers, balconies, closets, etc. About 88 percent of all households headed by Blacks had one or fewer persons per room, and 46 percent had .5 or fewer persons per room. Owners had a slightly higher percentage with one or fewer persons per room, 89 percent, than renters, with 87 percent.

Only about 30 percent of the recent movers had more than one person per room in 1975. There was an improvement over previous residences when 37 percent might have been considered overcrowded, averaging more than one person per room. Those people moving for neighborhood reasons had the lowest proportions with more than one person per room for both previous and 1975 residences, 20 and 21 percents, respectively. The only significant change in the percentage of household with more than one person per room occurred among those giving housing reasons for moving. Their percentages were 38 for previous and 29 percent for 1975 residences.

SUMMARY

The findings of this research relating to the general characteristics of recent movers are the same as those found in many mobility studies. Movers tended to be younger and better educated, and among Blacks there was a higher proportion of female household heads. Generally Black recent movers in the South approximate the education levels of such movers in the North and West, while nonmovers in the South were less well educated than those elsewhere. Median income of Black males was lower than that for males in other parts of the country. These consistencies help to support the credibility of other results from the AHS even though in many instances the sample does not permit conclusive statements.

Some problems associated with the AHS questions on reasons for moving were pointed out above. Again, however, some of the findings were supported by earlier research, and others are associated with the age and sex structure of Black recent mover household heads. Blacks gave housing and neighborhood reasons more frequently than whites who more often moved for employment reasons. Although Black males gave employment reasons more often than females, their percentage was considerably lower than for white males. Black females gave housing reasons and Black males gave family reasons more frequently than the opposite sex. Blacks giving employment reasons were the youngest, most highly educated and had the highest incomes. Those movers who were most concerned about composition, crowding, and changes in the neighborhood were older and less well educated.

The number of home owners among Blacks increased proportionately more than tenants between 1970 and 1975, raising the proportion of owners from 41.6 to 43.8 percent. A substantially larger proportion of recent movers were renters in 1975, and ownership among them did not increase with the move as exactly the same proportions changed from owner to renter as did otherwise. Generally, recent movers had higher property values than nonmovers and probably had higher property values in 1975 than previously. It appears that recent movers paid about the same rent as nonmovers, and that they had only a slight increase in rent associated with the move. Movers indicating neighborhood reasons had a significant increase in rent and paid higher rent in 1975 than persons moving for other reasons. While movers were slightly more crowded than nonmovers, because of younger and larger families, they had made some improvement in 1975 over their previous residences. Those moving for housing reasons showed the greatest improvement.

It is obvious from the responses given to the questions concerning reasons for moving that Blacks are seeking improvements in housing and neighborhood conditions. Some questions remain, however, as to whether these improvements are being realized. Our continuing research and that of others in the field may provide more definitive answers in the future.

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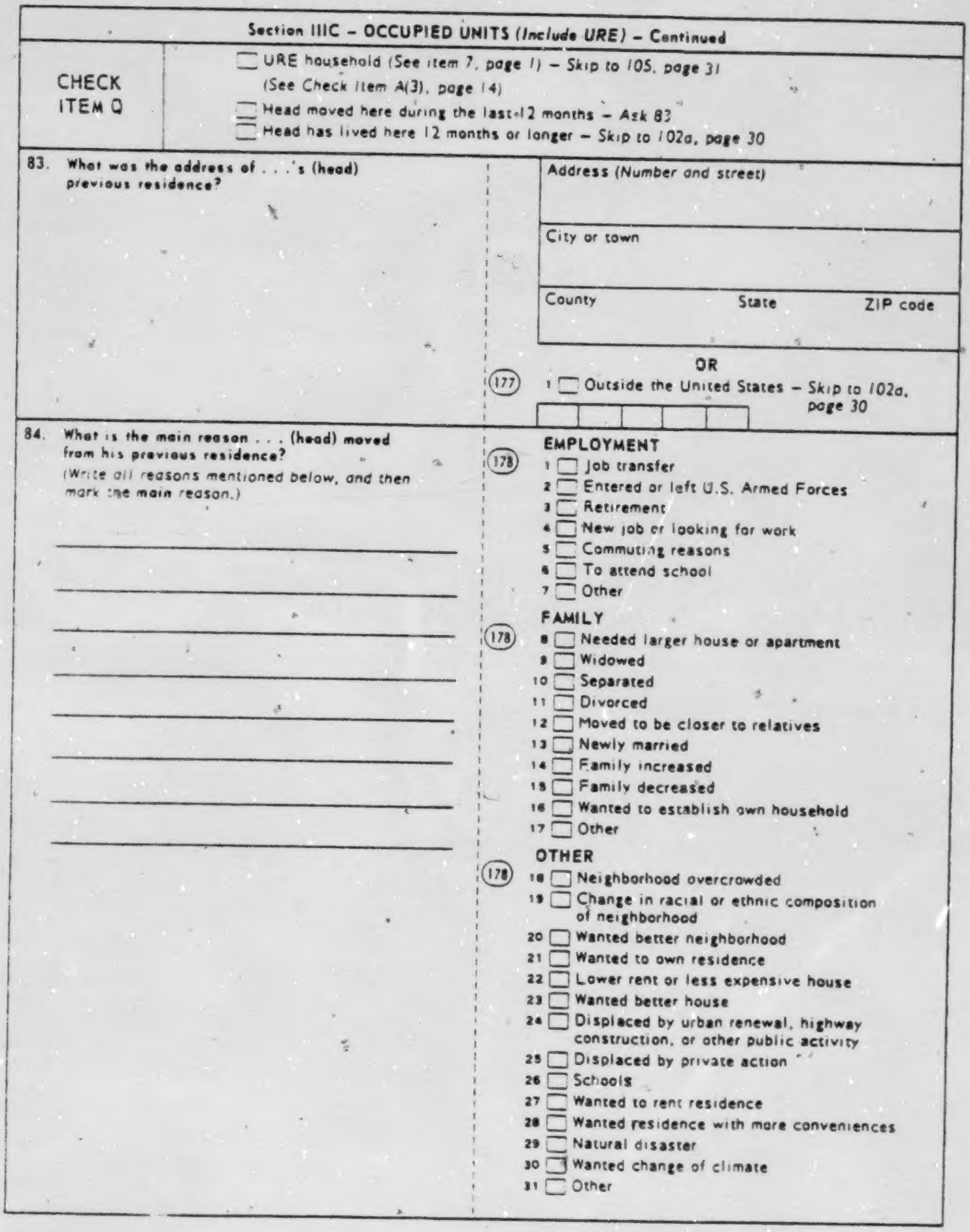
Figure 1 -- 1975 Annual Housing Survey: Reasons for moving for household heads who moved within the 12 months prior to the survey.



Section IIIC – OCCUPIED UNITS *(Include URE)* **– Continued**

CHECK ITEM Q

☐ URE household *(See item 7, page 1) – Skip to 105, page 31*
(See Check Item A(3), page 14)
☐ Head moved here during the last 12 months *– Ask 83*
☐ Head has lived here 12 months or longer *– Skip to 102a, page 30*

83. What was the address of . . .'s (head) previous residence?

Address *(Number and street)*
City or town
County State ZIP code

OR

(177) 1 ☐ Outside the United States *– Skip to 102a, page 30*

84. What is the main reason . . . (head) moved from his previous residence?
(Write all reasons mentioned below, and then mark the main reason.)

EMPLOYMENT

(178)
1 ☐ Job transfer
2 ☐ Entered or left U.S. Armed Forces
3 ☐ Retirement
4 ☐ New job or looking for work
5 ☐ Commuting reasons
6 ☐ To attend school
7 ☐ Other

FAMILY

(178)
8 ☐ Needed larger house or apartment
9 ☐ Widowed
10 ☐ Separated
11 ☐ Divorced
12 ☐ Moved to be closer to relatives
13 ☐ Newly married
14 ☐ Family increased
15 ☐ Family decreased
16 ☐ Wanted to establish own household
17 ☐ Other

OTHER

(178)
18 ☐ Neighborhood overcrowded
19 ☐ Change in racial or ethnic composition of neighborhood
20 ☐ Wanted better neighborhood
21 ☐ Wanted to own residence
22 ☐ Lower rent or less expensive house
23 ☐ Wanted better house
24 ☐ Displaced by urban renewal, highway construction, or other public activity
25 ☐ Displaced by private action
26 ☐ Schools
27 ☐ Wanted to rent residence
28 ☐ Wanted residence with more conveniences
29 ☐ Natural disaster
30 ☐ Wanted change of climate
31 ☐ Other

Table 1 -- Reasons for moving for recent mover household heads, by race, 1975

Reasons for moving	United States Number (000)	United States Percent	White Number (000)	White Percent	Black Number (000)	Black Percent	Other Races Number (000)	Other Races Percent
Recent mover household heads	9,870	100.0	8,711	100.0	975	100.0	184	100.0
Employment	2,283	23.1	2,156	24.8	94	9.6	33	18.0
Family	2,582	26.2	2,247	25.8	269	27.6	66	36.0
Housing	2,733	27.7	2,374	27.3	312	32.0	47	25.5
Neighborhood	698	7.1	564	6.5	122	12.5	12	6.6
Other Reasons	1,574	15.9	1,370	15.7	178	18.3	26	14.0

Table 2 -- Highest grade of school completed, by reason for moving of Black recent mover household heads, 1975

Highest grade of school completed	Black Recent Mover Household Heads		Reason for Moving									
			Employment		Family		Housing		Neighborhood		Other	
	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent
All black recent household heads	975	100.0	94	100.0	269	100.0	312	100.0	122	100.0	178	100.0
Elementary (8th or less)	154	15.8	11	11.5	29	10.7	56	18.0	23	19.0	35	19.8
3 years high school (9th thru 11th)	235	24.1	17	18.6	68	25.4	79	25.2	22	17.7	49	27.4
High school graduate (12th)	347	35.6	28	30.2	111	41.1	107	34.3	45	36.9	56	31.5
Some college	152	15.6	18	18.8	44	16.2	50	16.1	16	13.0	25	13.9
College graduate (4 years)	42	4.3	7	7.7	5	1.9	12	3.9	8	6.6	9	5.3
More than 4 years college	45	4.6	12	13.2	13	4.7	8	2.6	8	6.9	4	2.1
High school graduate or more	586	60.1	65	69.9	173	63.9	177	56.9	77	63.4	94	52.8
Standard Error		1.9		5.7		3.5		3.4		5.3		4.5

Table 3 -- Income in 12 months preceding survey, Black recent mover household heads by reason for moving, 1975

Income (Dollars)	Black Recent Movers Household Heads		Reason for Moving: Employment		Family		Housing		Neighborhood		Other	
	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent
Black recent movers household heads	975	100.0	94	100.0	269	100.0	312	100.0	122	100.0	178	100.0
Less than 3,000	199	20.4	13	13.4	44	16.4	78	24.9	26	21.6	39	21.6
3,000-4,999	203	20.8	16	16.6	47	17.3	67	21.6	21	17.2	52	29.2
5,000-6,999	107	11.0	8	8.2	34	12.6	25	8.1	15	12.6	25	14.1
7,000-9,999	146	15.0	21	22.5	37	13.7	44	14.0	17	13.8	28	15.7
10,000-14,999	173	17.8	19	20.4	57	21.2	52	16.6	22	17.9	24	13.3
15,000-24,999	113	11.6	9	9.3	37	13.7	39	12.6	18	14.5	11	6.1
25,000 and over	33	3.4	9	9.6	14	5.2	7	2.3	3	2.5	0	0.0
Median	$6,600		$8,600		$7,800		$5,900		$6,800		$4,900	
Standard Error	$350		$830		$810		$850		$910		$530	

Table 4 -- Median monthly rent, by reason for moving of Black recent mover household heads who were renters in both previous and 1975 residences

Median monthly rent	Black Recent Mover Household Heads (renters)	Reason for Moving: Employment	Family	Housing	Neighborhood	Other
Renters, both residences (000)	632	54	155	200	87	135
Previous residence	$107	$139	$95	$109	$103	$109
Standard error	$5	$9	$8	$8	$10	$10
1975 residence	$119	$127	$110	$108	$134	$126
Standard error	$5	$11	$17	$8	$11	$9
Difference	$12	$-12	$15	$-1	$31	$17
Standard error	$7	$14	$18	$12	$15	$13

Source: U.S. Department of Agriculture, Economics, Statistics, and Cooperatives Service and University of Georgia, Institute for Behavioral Research Cooperative Internal Migration Projects. Data are from U.S. Bureau of the Census. Annual Housing Survey, 1975, United States and Regions, Part D -- Housing Characteristics of Recent Movers, Current Housing Reports, Series H-150-75D, and associated data tapes. (Those with no response on reason question were omitted.)

CHARACTERISTICS FOUND AMONG CLAIBORNE COUNTY HOUSEHOLDS AS THEY RELATE TO HOUSEHOLD EQUIPMENT[1]

by

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STATEMENT OF THE PROBLEM

This study was based on the premise that household equipment or convenience appliances could exert tremendous influence on the quality of family living. The convenience and comfort which pertinent equipment can provide may have tremendous impact upon the social and economic lives of family members. In fact these could possibly impact on an individual's outlook on life, his hopes, aspirations, drives, and, consequently, his entire lifestyle. Thus, the status of home appliances and the electrical wiring designed to service them, were considered important researchable items which tend to enhance or detract from the quality of living experienced in the housing unit.

HYPOTHESIS

It was assumed that the existence of convenience type household equipment would hold significant relationships to such family characteristics as: (1) family size, (2) age, (3) sex, (4) education, (5) income, (6) years of occupancy, (7) tenure status, (8) occupation, and (9) marital status.

OBJECTIVES

This study was conducted in an effort to (1) determine fundamental household equipment needs among Claiborne County residents and to (2) identify critical factors undergirding the status of these needs.

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[1] A Research paper presented at the conference of "The Southern Association of Agricultural Scientists" in New Orleans, Louisiana, February 5, 1979.

PROCEDURES

Information for this study was gathered through face-to-face interviews taken by a group of previously trained research assistants. For the most part, a simple check-list with a minimum of questions was used to reduce reluctant responses to a minimum. Data were tabularized and analyzed in order to determine the presence or absence of significant relationships using, for the most part, the X^2 technique. A Linear regression equation was calculated for twelve selected functions constituting this report. See attachments for Table # 1 — Composite Results of 12 Correlated Functions and Table # 2 — Composite Results of Study.

FINDINGS

FAMILY SIZE AND DINING CAPACITY

It was interesting to note that quite a few respondents indicated dining capacities for one, three, five, and seven persons. For this report, dining capacity was divided into three categories --low, middle, and high to indicate accommodations for 1 to 3, 4 to 5, and 6 or more respectively.

The large families constituting 9.8 per cent of those responding to this item garnered 3.6 per cent of the low capacity accommodations, 6.8 per cent of the moderate, and 3.8 per cent of the high capacity provisions, thus, exceeding their sample ratio only with regard to high capacity accommodations. Similarly, the medium sized families with 37.3 per cent showing high dining capacities exceeded their sample ratio of 32.3. They fell below their equal proportion in respect to low and medium capacities with 12.8 and 31.3 per cents respectively. The small families outstripped their equal proportion margin with regard to small and moderate dining capacities. They constituted 57.9 per cent of the sample while drawing 83.6, 61.9, and 38.9 per cents of the low, medium, and high dining accommodations in that order.

Thus, family size and dining capacity show significant relationships with a regression equation of ... $Y = 4.3 + .16x$.

AGE OF FAMILY HEAD AND DINING CAPACITY

No well defined relationship is discerned between age and dining capacity although the data show slight significance. The regression equation for this set of data is: $Y=5.1 + .0006x$ which defines an almost horizontal linear curve.

However, it may be of interest to note that a larger per cent of the family heads 60 years of age and over, provided more low and middle capacities for dining than their sample make-up warranted. The three higher groups, age 30 to 59, showed more seating relative to high dining capacity. The two lowest groups ---under 20 and from 20 to 29 years surpassed their ratio with low accommodations.

EDUCATION AND DINING CAPACITY

A very small degree of significance exists between dining capacity and education. Data for this set of variables indicate a slight significant relationship as shown by a small, slightly positive coefficient of regression. — $Y = 4.85 + .0679x$.

The family heads with 9 to 12 years of education did show a slightly larger per cent of low dining accommodations than their sampled ratio would tend to indicate. Those with 0-8 years fell below their ratio relative to this facility. Otherwise, level of education seemed to have had little influence on the degree to which dining capacity existed.

INCOME AND DINING CAPACITY

Dining capacity — as revealed through data collected for this study — is a function of income. Calculations indicate that between 20 and 30 per cent of the variations in dining capacity can be explained by changes in income. Although, relatively small, this does suggest significant relationships between the two variables. Respondents in the two groups above $3,000 show a larger per cent of high dining capacity than their sampled ratio would indicate. Those with $1.000 and under had larger low and middle capacity ratios, while the $1,001 to $3,000 income levels followed closely the line of equal proportion. Regression equation; $Y = 4066 + .22x$.

FAMILY SIZE AND NUMBER OF BEDS

As was expected, family size did influence the number of beds in the households studied according to data analyses. Large and medium sized families tended to possess large numbers of beds in greater proportion than their sample representation; while small families tended heavily toward fewer beds. Test results show significance at .05 level and the resulting regression equation is: $Y = 1.8976 + 0.24x$ which was also significant.

AGE AND NUMBER OF BEDS

Viable pairs of variables — Age and number of beds indicate that data are heavily directed toward the 50 and above years of age. This was purely coincidental, in that no special effort was made to collect these data from such a representative type group. Another noteworthy observation is the fact that the 60 year olds and over, along with the two groups from 20-29, were inclined toward fewer beds relative to their sample make-up while both groups in the 40-59 year level showed inclinations toward mid and larger numbers of beds

These variables are significantly related with a regression equation of: $Y = 2.5 + 0.13x$

EUDCATION AND NUMBER OF BEDS

The educational level for participants reporting viable pairs of data for these two variables tended heavily toward those in the 0-12th grades.

Sixty-eight per cent had acheived an education of 0-8 years while level 9-12 had almost 25 per cent. The influence of education on number of beds was quite minor although it showed some positive significance. The resulting regression equation is $Y = 2.68 + 0.0285x$.

Those with higher bed propensities included the 0-8 years of education and the 13-16 years. Others showed definite tendencies toward smaller numbers of beds per family.

INCOME AND NUMBER OF BEDS

Slight positive relationships existed between these two variables as can be seen in the regression coefficient of 0.2.

It is discernable that families with $3,001 and above had larger proportions of large numbers of beds. The $1,001 - $3,00 group weighted more heavily toward smaller numbers of beds. The calculated regression equation shows $Y = 2.569 + 0.202x$.

FAMILY SIZE AND COMPLETE BATH

Size of family had a very minor influence on the existence of complete baths comprising a lavatory, toilet, tub or shower. This is made evident by the regression equation which shows that $Y = .4 + .0158x$. The X^2 test indicated no significant relationship between the two variables. Nevertheless, the percentage of yes responses registered, increased with each higher family size.

AGE OF FAMILY HEAD AND COMPETE BATH

The relationship between age and complete bath is so slight that it could well be considered insignificant — $Y = .56 - .001x$ — a slight negative relationship as shown in the regression coefficient proof.

Age showed a range of 40+ while percentage range for complete bath was 17.5 — a very small degree of dispersion, indicating complete baths to be highly age inelastic. Of the 745 viable pairs of responses, 356 or 74.8 per cent had complete baths. —slightly less than one-half.

EDUCATION OF FAMILY HEAD AND COMPLETE BATH

Three hundred seventh-four of the 828 usable pairs of responses to these questionnaire items had complete baths — a 45.2 per cent ratio. Of all the yes responses, the 0-8 years of education constituted 67.3 per cent; the 9-12 years, 22.5 per cent; 13-16 years, 9.4 per cent; and the 17 years and over 0.8 per cent as compared to their sample percentage participation of 73.4, 20.3, 5.9 and 0.4 respectively. Only the 0-8 graders failed to indicate % equal to their sample ratio. Regression equation: $Y = 0.17 + 0.04x$.

INCOME AND COMPLETE BATH

According to the established ratio, the three top level income groups involving persons with $1,001 and above, exceeded their sample proportion of yes responses to the complete bath questionnaire item. Only the $1,000 and under group fell below its sample ratio with affirmative responses. They gave 16.8 per cent yes responses as compared to 27.8 per cent of the sample.

Of the 8/4 usable pairs of responses, 375 or 46.1 per cent gave affirmative answers. Regression equation: $Y = 0.37 - 0.039x$ supports the tenet.

SUMMARY

Of the 207 tests conducted, using 9 independent and 23 dependent variables, the hypothesis of significant relationships was accepted for 120 or 58 per cent of the cases involved in the study.

Size of family showed 39.1 per cent significant relations to the 23 dependent variables; age of family head 39.1 per cent; sex of family head 34.8 per cent; education level 74.0 per cent; income 91.3 per cent; years of occupancy 30.4 per cent; tenure status 82.6 per cent; occupation 52.2 per cent; and marital status 78.3 per cent.

Of the 12 tests conducted specifically for this report, 4 independent and 3 dependent variables 91.7 per cent showed significant relationships: Family size, Age, Education, and Income showed 67, 100, 100, and 100 per cents respectively.

Of the twelve correlations made for this report, 11 showed significant relationships. Only with respect to complete bath and family size were no meaningful relationships indicated. Family size correlated significant with 67 per cent of the selected dependent variables while age, education and income all showed significant relationship in each case. Therefore age, education, income and family size appeared to influence the quality of family life in Claiborne County, Mississippi.

RECOMMENDATIONS

It is firmly suggested that the proper agencies take necessary actions to bring about desired changes in household conviences appliances and equipment as a means of enhancing the quality of family living in Claiborne County Mississippi.

Table 1
COMPOSITE RESULTS OF 12 CORRELATED FUNCIONS

Family Characteristics	Dining Capacity	Number of Beds	Complete Bath	Significant Ratio	%
Family Size	+	+	0	2/3	67
Age	+	+	+	3/3	100
Education	+	+	+	3/3	100
Income	+	+	+	3/3	100
Ratio	4/4	4/4	3/4		11/12
% Sig.	100	100	75		91.7

+=Significance
0=Not Sig., .05 Level

TABLE II
COMPOSITE RESULTS OF STUDY

Family Characteristics	COOKING TYPE	DINING CAPACITY	NO. BEDS	COMPLETE BATHS	COOLING TYPE	PIPED WATER	TELEPHONE	KITCHEN SINK	GARBAGE DISPOSAL	TOILET	TUB	SHOWER	LAVATORY	WASHER	DRYER	IRON	IRONING BOARD	RADIO	T.V.	HANING CLOSET	REFRIGERATOR	FREEZER	CLOSED CUPBOARD	RATIO 1 TO 5		RATIO ENTIRE STUDY	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	RATIO	%	PATIO	%
Family size	0	+	+	0	+	0	+	0	0	0	0	+	0	0	0	+	0	0	+	+	0	0	+	3/5	60	9/23	39
Age	+	+	+	+	0	0	0	+	0	0	0	+	0	0	0	0	0	0	+	+	0	+	0	4/5	80	9/23	39
Sex	+	0	+	+	0	0	+	0	0	0	0	0	+	+	0	0	0	+	0	+	0	0	0	3/5	60	8/23	35
Education	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	0	0	0	+	+	0	+	0	3/5	60	17/23	74
Income	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	0	+	+	5/5	100	21/23	91
Years Occupancy	0	0	0	+	0	0	0	0	0	+	+	+	0	0	0	0	+	0	0	+	+	0	0	1/5	20	7/23	30
Tenure status	+	+	+	+	+	0	+	+	+	+	+	+	+	+	0	+	+	+	0	+	0	+	+	5/5	100	19/23	83
Occupation	0	+	+	+	0	0	0	+	+	+	+	0	+	+	+	0	0	0	0	+	0	+	0	3/5	60	12/23	52
Marital status	+	0	+	+	0	0	+	+	0	+	+	+	+	+	+	+	+	+	+	+	0	+	+	3/5	60	18/23	78
Percent sig.	67	67	89	89	44	22	67	67	44	67	67	78	67	56	44	33	44	44	56	100	11	67	44		67		58
	6/9	6/9	8/9	8/9	4/9	2/9	6/9	5/9	4/9	6/9	6/9	7/9	6/9	5/9	4/9	3/9	4/9	4/9	5/9	9/9	1/9	6/9	4/9		30/45		120/207

+ = Sig., .05 Level
0 = Not Sig., .05 Level

Session 6

Regional Perspectives in Rural Development

"Regional Perspectives in Rural Development: Local Communities Need Answers". Honorable Tony Byrne, Mayor of Natchez, Mississippi.

"Regional Perspectives in Rural Development: Action Agencies Need Answers". Tom Marshall, USDA.

"Regional Perspectives in Rural Development: Can Universities Meet These Needs?" Edward O. Moe, USDA.

"Regional Perspectives in Rural Development: Responding to the Needs of Communities and Agencies". Paul D. Warner.

Regional Perspectives in Rural Development: Local Communities Need Answers

Honorable Tony Byrne
Mayor
Natchez, Mississippi

The following quotations where taken from a speech, and I want to ask you if they sound familiar:

> "During the past decade, the question of sewage disposal has been brought prominently before municipalities."
>
> "The prevention of the lavish and unnecessary use of water in our cities has been brought prominently before municipalities."
>
> "The question of garbage disposal has come prominently to the front within the past few years, and we have much to learn from European cities in this respect."
>
> "The smoke nuisance has become a great evil. Although several cities have passed ordinances to prevent this trouble, I understand it has been difficult to enforce them."
>
> "I am of the opinion that an official cannot be a good engineer and in addition devote his time to politics. One of the difficulties and drawbacks to the more successful administration of American cities is the frequent change of officers, caused by the almost universal introduction of politics into municipal government."

The only problem about this sounding familiar is that these are excerpts from a speech given by Charles H. Rust at a meeting of the American Society of Municipal Improvements in Indianapolis, Indiana, October 20, 1903.

One of the biggest problems facing local communities, and particularly the smaller communities, is where do we go to find answers? I feel that a lot of the problems facing our cities can be answered with technological help from our universities, the federal government and organizations such as the Southern Association of Agricultural Scientists. In fact, I strongly suspect that a lot of the questions facing cities at the present time have already been answered by some of these organizations, but there is a communications problem in getting this information to the cities.

I don't feel that it's anybody's particular fault that this is happening, and I feel that my appearance today as a representative of the cities will help eliminate some of these communication problems.

I think there has been too much of a tendency in the past to have meetings such as this one where scientists talk to scientists and other meetings where politicans talk with politicians telling each other their own problems but not seeking to find the answers from other organizations.

Because of technological problems in all cities, an organization, of which the city of Natchez is a member, has been established to help cities with populations of 50,000 and less to get the technical help that is needed. The name of this organizaton is Community Technology Initiative Program (CTIP). CTIP was a result of Public Technology, Inc., (PTI) securing funds from the National Science Foundation in order to set up a network of selected local governments of cities under 50,000 population. This was done in January, 1977, and consists of elected or appointed officials from 29 cities and townships and three counties from around the nation. The City of Natchez has a man in Washington who represents our city on a full-time basis. He informed me of the creation of CTIP and suggested that I write a letter requesting our city to be included in the general makeup. This was done, and we were fortunate enough to be selected. We are in a region consisting of Spartanburg, South Carolina; Hope, Arkansas; and Pritchard, Alabama.

Each member jurisdiction was asked to submit a list of problems affecting its community into 10 basic areas:

1. Community and Economic Development
2. Criminal Justice
3. Energy
4. Environmental Services
5. Fire Safety and Disaster Preparedness
6. Health
7. Human Resources
8. Management Finance and Personnel
9. Public Works and Public Utilities
10. Transportation

Each of us was asked to submit our needs in the 10 designated categories, which meant that we had approximately 30 need statements from each community. From this, a Needs Committee was selected to review the approximately 385 needs statements and to select three from each of the 10 categories. Some of the needs statements that were eliminated were found to have already been answered in other communities.

Some of the needs statements, as selected by the CTIP Committee, are:

Storm water control methods--Storm water runoff is recognized as a major carrier of pollutants. We realize that a number of studies have been done to identify various measures for controlling storm water runoff in urban areas, but again, information on the cost and utilization of these controlled measures is not available to the municipalities.

Technique for comparing solar and conventional designed housing units-- This was another problem identified and one that could have tremendous benefits in the future to help with energy conservation.

Another problem identified had to do with the information cities receive concerning their population. As all of you know, the census is only done every 10 years, but almost all programs are designed to conform with certain population categories. There is a strong feeling that census data should be collected on a much more frequent basis.

In the field of criminal justice, police productivity was a major problem, along with vandalism control and prevention, particularly in our city parks. We also found a problem in police patrol-vehicle specifications, with many cities changing their specifications each year and not really being able to purchase the cars that give the best service. We are tied down by legal ads and legal bids, which will not allow you to go out and purchase cars that have been functioning on an economical basis for the city.

We found that in regard to energy control many of our building codes give very little consideration to the use of energy efficient materials and construction methods. There is a need to evaluate our existing building codes to determine what changes in minimum standards would best conserve energy. It was also discovered that over 20 percent of the energy consumed in the United States is used to cool, heat and light buildings. Because many of these buildings were constructed when energy was relatively cheap, they are now wasting half of the energy they consume. We feel that methods need to be devised for measuring the energy that could be conserved by remodeling some of these buildings.

It was interesting to note in a recent report to the Congress that when a survey was done of cities and how they secured technical assistance, the frequency of use for colleges and universities was rated "rarely," 49.5 percent; 45.3 percent occasionally asked, and only 5.3% usually asked. It was also ironic to me that consultants led the way when technical assistance was needed from municiaplities with a 12.6 percent rating, and that the Federal government only had a rating of 3.6%. As a result of this, the Federal government has now started a program under the Office of Management and Budget to determine what support the Federal government should give to state and local government in regard to technological help. It is also interesting to note that the National League of Cities and the International City Managers Association have formed a committee on improving local government management and technology. I think that all of us are finally beginning to realize that we must depend on each other and use the knowledge that we have in our related fields in order to solve a lot of our problems.

CTIP is now providing technological agents to all of the participants in the CTIP program. In our region, our technological agent is like a circuit rider in that he will go from city to city helping with any technical problems that may arise. These are problems that have been identified by the local communities in addition to the overall needs assessment by CTIP.

Our technological agent is Gerald Price who came from the Redstone Arsenal, and he is located in Spartanburg, South Carolina. He keeps the City of Natchez informed by memos, telephone calls and personal visits. CTIP was fortunate to secure a working agreement with a lot of the Federal laboratories, and Redstone Arsenal just happened to be the one to provide the technological agent for our area. Some of the problems that Gerald is helping Natchez try to solve include recycling of old tires in our city sanitary landfill, helping us have a better routing program for our sanitation and garbage trucks, and helping us find some way to identify the location of graves in the old city cemetery.

Since Natchez is the oldest city on the Mississippi River, we naturally turn to the river for transportation and also for pleasure. At the present time, Gerald is trying to determine if we can't have some better system of docking pleasure boats. He is also helping us with problems involved with our computer and has already solved some of these problems, including giving to me a monthly report of budget figures in the manner that I need in order to continue to oversee the financial structure of the city.

We are going to ask Gerald for help in some of our senior citizens programs, as we are now providing land to be used by the senior citizens for vegetable gardens. The senior citizens can use this land in any way they desire, including selling the vegetables or using them themselves. We feel that there have to be some better methods of production that can be presented to the senior citizens each year before they actually plant their gardens.

Our senior citizens complex is in an old school that has been restored and remodeled, and in the basement there is one of the first indoor swimming pools in the South. Needless to say, it has been abandoned for years, but we are now asking for help to see how this pool can be restored to be used for senior citizens, the handicapped, and even for the young when not in use by senior citizens.

The number one problem concerning most cities--as ascertained through CTIP--is a more permanent patching material to be used for potholes in streets. It is difficult to find a patching material that will stay under conditions of extreme heat, extreme cold, snow, rain and salt. Following right behind that was the problem of how to rehabilitate our existing paved streets, as some of these streets were paved many years ago and were not designed for the increased traffic load they now are handling. Some of the other problems, as determined by the CTIP survey, included an automated sewerage system monitor which would alert maintenance personnel that a blockage is occurring within the sewerage system, to develop a water leak detector, and to develop an automatic remote meter reading system. Cities are also looking for a way to have a more permanent system to mark pavement. At the present time, most cities are using an oil base paint, which is becoming scarce and more expensive, and even at that, the markings only last from one to three years.

In regard to our fire departments, the biggest problem was productivity of our firefighters, particularly in the area of having something for them to do between emergency runs. We also need to look into standardized specifications for our fire equipment. At the present time most of our fire equipment, particularly the pumpers and ladder trucks, is custom made to highly individual specifications. Also, there is a need to explore the possibility of developing a firefighting foam or other alternatives to water, because in most fires, quite a bit of damage is done by the use of the water to extinguish the fire. Because of stringent Environmental Protection Agency rules, most cities are now having to have a certified landfill, which we used to call a dump. Because of all the new rules and regulations, we need to look into the possibilities and methods of recycling our garbage and trash.

One of the greatest problems facing all city governments has to do with the taxing of improvements to buildings and houses. In order to help clean up slum areas and to help downtown, improvements have to be made, and when they are made, most city governments tax for these improvements. There is a possibility that we should consider taxing the land value at a much higher rate and the improvements at a lower rate.

There are just a few of the problems facing my community and your community, but as I stated in the beginning, I feel that a lot of these have already been solved by some of you sitting here today. The cities need your help, because we have to have answers for these problems, and I am asking you to help us all by volunteering your services to your community in order that these an other questions can be answered.

Regional Perspectives in Rural Development: Action Agencies Need Answers

Tom Marshall
FmHA, USDA

The Farmers Home Administration (FmHA) this past year spent a great deal of money in rural areas. In Fiscal Year 1978, we expended $4.995 billion in farm related programs. This resulted in 155,951 loans and grants in areas ranging from emergency programs to farm ownership. In rural housing programs, we expended $3.761 billion for 122,581 loans and grants. In the area of community programs, FmHA expended $2.331 billion on 5,165 community development activities including water and sewage loans and grants, business and industrial loans and grants, etc. In all, FmHA had a total expenditure of $11,088,919,305 to assist applicants in 283,696 loan and grant programs.

To direct FmHA expenditures its administrator, Gordon Cavanaugh, outlined the following policy directions to all FmHA personnel: (1) FmHA shall target resources to the maximum extent possible toward assisting disadvantaged people and distressed communitites, and (2) FmHA will increase the effectiveness of community development programs by working closely with other agencies and institutions. The administrator further defines responsibility of his targeting policies as follows: (1) National level will allocate non-farm funds primarily on the basis of need; for example, consideration will be given to the number of rural people in poverty, the amount of substandard housing, and the unemployment level. The state level will develop plans that give priority to the more needy persons and most distressed communitites and will reflect the basis of the national level allocations. The state, district, and county levels will provide full information to all eligible persons, especially the disadvantaged and minorities, about our programs, giving assistance as well as information when needed. The administrator also indicated that in addition to clearly targeting its resources, FmHA would increase the effectiveness of community development programs by working closely with state and local government regional planning organizations and other private and nonprofit groups. FmHA will also work closely and cooperatively with USDA agencies and other Federal programs in the development arena.

The administrator indicated that it was the aim of FmHA to be a more effective partner in state and local development efforts and the agency's policies and investment decisions would reflect state and local priorities and support local development efforts whenever possible.

Our Assistant Secretary for Rural Development, Alex Mercure, has written each of the governors indicating the department's support for the preparation of state growth and development strategies. He has expressed our willingness to assist in the development of investment strategies for rural areas and to help implement their priority needs and programs. He also offered to work with them in targeting USDA programs and helping to target other Federal assistance programs to respond effectively to their development strategies for rural areas.

We see the state governments, then, as a primary actor in developing rural areas and in strengthening the capacity of rural communities to plan and implement development efforts. To encourage states to take a stronger role in rural development, we want to induce them to:

- establish state development priorities for rural areas based on local and area priorities and to develop joint Federal/state/local investment strategies for meeting these priorities;

- participate in the formulation of national rural development priorities and the development of guidelines and objectives for Federal investments; and
- strengthen the fiscal and institutional capacity of local nonmetropolitan governments to plan and implement development programs and to participate in the development of state priorities and investment strategies.

In order to perform in this role, the states must have a clear conception of what they want to achieve. There is a need for research in this area to outline what strategies and priorities should be developed for each state. There must be information available to the decision-makers to allow them to make decisions which will enhance the rural development of the state.

USDA will work to use those state priorities and strategies in our formulation of national rural development priorities and criteria. We will work to target our programs in accord with the state priorities and strategies, within the context of national priorities and criteria. And we will do all we can to negotiate joint investment plans with the states and with other Federal agencies in order to help implement the state strategies.

In addition, we are committed to using our extensive field structure to help states carry out their role. We will do this in two ways.

First, we are currently reorganizing Farmers Home. We are doing this for two reasons. First, to enable it to deliver all of its programs in a more effective and responsive way, particularly its economic and community development programs. Second, to give it the structure that will allow it to take maximum advantage of the convening authority of Section 603 of the Rural Development Act.

The second way we will use our extensive field structure to help the states is to strengthen the USDA Rural Development Committee structure in Washington and in the field. The aim is to have this structure respond to state and local investment priorities as well as provide technical support for development planning at the state and local levels.

Under the reorganization, the key operational role in the Farmers Home rural development efforts will be played by the district office. The district offices will administer and service the community development loan programs. Along with the state offices and the national office, they will exercise the convening authority of Section 603 of the Rural Development Act--in this case to bring together local and area-wide officials with Federal and state officials and community leaders to help plan and coordinate rural development efforts in the area. The responsibilities of the district offices will place them in continual contact with community and county government officials and community leaders. This will enable these offices to assist in identifying the needs of these officals for planning, technical, and management assistance.

Our state-related strategy includes establishing strong relations between the district office and town and county governments, area-wide planning and development districts, and other nongovernmental community development organizations, including community action program groups. However, the strategy will place its greatest emphasis on working with and assisting those agencies and institutions designated by the state to assist local development and to integrate local developments on a substate basis. In most cases, this will mean focusing on area-wide planning and development districts. In other cases, it will mean working primarily with counties. And in still others, jurisdictional questions will be unresolved.

Farmers Home has no stake in any given institution at the substate level. It's main interest is in having an organized set of institutions to work with which can set some priorities and develop and implement some innovative programs. Only state government has the authority to set the lines of responsibility among the various institutions and to give them the basic tools to work with. Thus, Farmers Home is committed to work with state government in strengthening or establishing clear lines of responsibility in nonmetropolitan economic and community development.

In those states where districts are unified or where the planning and development districts have been given clearly designated responsibilities for rural economic and community development, the Farmers Home district boundaries will be made coterminous with these districts. Our district offices will encourage and assist substate districts to identify local needs, set priorities, and develop strategies and programs to meet these needs. Further, the district offices will assist them in preparing investment plans to implement those strategies and will negotiate Farmers Home's role in such investment plans. Here again research is needed to supply information and guidelines for development of investment strategies.

Where possible, these investment plans will include integrated program packages from a variety of funding sources. However, they will also include individual programs which can be used to guide the investment of Farmers Home funds in meeting priority needs in the district. Steps will be taken to strengthen the A-95 process so that Farmers Home can give priority treatment to loans directly addressing a district plan priority and can ensure that loan applications which don't directly address a district plan priority are consistent with that plan or at least don't conflict with it.

In those states where counties rather than substate districts have been given primary responsibility for rural economic and community development, Farmers Home districts will be restructured so as to be coterminous with several counties and will not bifurcate counties into more than one district. The relationships described above will be established with these counties also.

In those states where more than one agency has legally designated responsibilities for rural economic and community development, the district office will establish working relations with each such agency. As stated earlier, every effort will be made by Farmers Home to induce cooperative efforts between these agencies and to encourage the state government to do the same. However, Farmers Home must always reserve the right to carry out its mission consistent with Federal objectives, and there will be cases where the extent of local needs will cause us to fund projects even over the opposition of one or more of these agencies. We hope these cases will be rare, but undoubtedly, those areas without reasonably cooperative institutional arrangements for rural economic and community development will suffer in the competition for limited funds.

Creating effective institutional arrangements for rural development at the substate level is beyond the control of the Federal government. However, an integrated USDA service delivery system, staffed at the state and substate level by people with the capability and mandate to invest in responsible and coordinated rural development programs, will be a strong inducement to developing such arrangements.

The district offices will be staffed by directors who will be trained in rural development. They will have the capability to assure that the impacts of given loan applications on various economic, social, physical, and environmental aspects of community life are assessed. They will have the capability to relate the proposed programs to other planned or ongoing acitivites. And they will have the skills to assist in developing a sound financial structure for the proposed effort. Research that can be made available to assist the district offices in developing these skills is needed.

The state Farmers Home office will also play a major role in the rural development single service delivery system. I've said that the district office will work closely with local communities, counties, and substate agencies. The state office will work closely with the governor and with relevant state agencies to develop joint Federal/state investment plans. Specifically, Farmers Home will attempt to accommodate its program allocations within the state consistent with State targets and criteria for local investments, and to assist in mobilizing and coordinating other Federal agencies to plan and implement investment strategies. In addition, the Section 603 coordinating role assigned to USDA will be exercised at the state level through use of the convening authority. The state office will encourage involvement of local governments, substate districts, consumer and public interest groups, and the private sector in the rural development policy process. Research is needed to assist FmHA in evaluating the impact of the rural development efforts.

Just as local and substate agencies vary greatly, so do state governments. Some states have taken a lead agency approach and developed strong state planning agencies. Some rely heavily on departments of economic development or community development. In still others, responsibility for rural development is shared among a number of agencies. In such states, there are varying degrees of interagency coordination and several types of structures for policy management and program coordination. Whatever policy planning and management structure a state may employ, we feel that Farmers Home, because of its decentralized operations, can adapt to, and help to strengthen, that structure.

I should add that the information and experience of the extensive county and district field staff can also be made to serve the state policy planning and management structure. This staff can provide additional and perhaps different perspectives that will be provided by state or local government agencies.

Also, rural development training programs planned for Farmers Home field staff will be extended to include officials and staff from local and area-wide agencies. The state office of Farmers Home will also draw upon the total resources of USDA, particularly state extension, soil conservation, and forestry service experts, to provide technical information and skills to local and area-wide agencies.

At the district level, the district office director will be expected to be a rural developer familiar with the spectrum of problems in rural areas and their interrelationships. And he or she will have to be able to develop and apply area and community development criteria in the approval and monitoring of individual programs. But at the state level, the administration of community facility, business and industrial, and multiple unit housing programs will be separate.

The state office will have a rural development staff whose responsibilities will be to see that rural development investment criteria are utilized in the program and allocation planning process. This staff will also assist the state director in working directly with the governor and state agencies and in organizing the state office's planning and decision process on a coordinated basis. And the staff will help plan and manage the technical and planning assistance programs for local and area-wide agencies.

The objective is to move the making of grants and loans from a program management framework into a policy and investment framework. This will give more effective guidelines to program decisions and will utilize potential secondary impacts of program decisions as criteria for making such decisions. First, we will be trying to bring policy considerations and development criteria to bear on program decisions, and then we will begin to develop these considerations and criteria into more comprehensive programs and investment strategies.

Farmers Home has spent substantial time and effort determining, in conjunction with its field staff, the changes in the field structure necessary to implement the basic field responsibilities outlined above. State offices are in the process of realigning these functions within the various states. It is obvious that we are asking the district and state offices to take on new responsibilities. Each state is now in the process of assessing the staff needs to be faced in light of these new responsibilities and developing alternative implementation strategies in light of staff constraints. The primary emphasis in the first stages of the reorganization will be to strengthen the rural development capability of the state offices and to phase the strengthening of the district office in terms of the needs and priorities within the various states. One clear implication of our proposed strategy for making Farmers Home an effective rural development delivery system is the need for better trained staff because of the broader responsibilities the agency is assuming. This requires meaningful research which will assist Farmers Home in reaching this goal.

A while back I said that we would also be able to help the states through improving our rural development committee structure. The department is currently involved in revitalizing this committee structure as a vital tool in field coordination of USDA activitites. A series of regional meetings of USDA field staff has been held to discuss coordination of USDA agency activities in energy, land use, and rural development. Emphasis is being placed on state committees that can:

- support the governor's rural development policy management structure;
- assist in targeting USDA interagency rural development activities in accord with state and local policies and priorities;
- support the state-designated substate planning and development agencies; and
- assist local governments and community development organizations to plan and implement programs and, where needed, to obtain the support of the state-designated area-wide planning and development districts.

Most likely, these committees will work through task forces on specific rural development issues--such as economic and community development, energy, and land use--under the leadership of the agency most directly concerned with the issue.

Another tool we are using this year to strengthen rural development planning at the local, substate, and state levels is direct financial assistance, under Section 111 of the Rural Development Act. Regulations for this program were published on April 4 and preapplications are now being accepted at Farmers Home state and county offices. These regulations were published after extensive consultation with public and private interest groups and state and local governments.

If we wish local communities and state governments to assume primary responsibility for balanced growth in their jurisdictions and answer politically for the exercise of that responsibility, and to be the primary achievers of national objectives, we must find ways to strengthen the capability of these institutions to develop and implement coherent rural development strategies and programs.

In essence, the current funding of the Area Development Assistance Planning Grant Program is being veiwed as an opportunity to signal our intent to work coöperatively with state and local communities and to explore ways to involve community organizations and the private sector with local and state governments in the rural development planning process. We have encouraged a cross-section of planning and development organizations to participate in this demonstration. And we have indicated to the governors that we would like to make 10 to 12 grants to give a small boost to those policy management and planning efforts closely tied to governor's offices that reflect a start toward state investment strategies for rural areas.

Regional Perspectives in Rural Development: Can Universities Meet These Needs?*

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The demand for new ideas to help solve major national and community problems is a significant challenge to institutions of higher education. Problems today at every level seem larger, more threatening, and more difficult to solve. At the same time there is a growing feeling that the colleges and universities which should be able to help solve problems are not helping, and frequently seem afraid to try.

I appreciate the opportunity of exploring the question as to whether or not institutions of higher education can meet the research and educational needs of municipalities and Federal loan, grant and technical assistance agencies such as the Farmer's Home Administration. While I had not heard the specific problems identified by Mayor Byrne and Mr. Marshall until they made their presentations here a few minutes ago, I have no hesitation in saying universities can meet these needs or most of them. This may sound presumptious. It is presumptious, but such is my perception of the research and problem solving capability of the experiment stations, the extension services and the land-grant universities.

What I would like to do in the few minutes I have is speak to these four points:

I. The University and the Functions of Knowledge.

II. Building a New User/Researcher Partnership.

III. The Community Technology Initiatives Program - A Model of a Research and Education/User Partnership.

IV. Some Possible Payoffs.

*A presentation at a meeting of the Southern Association of Agricultural Scientists, New Orleans, Louisiana, February 5, 1979.

I. The University and the Functions of Knowledge

Under the conditions of today it is useful to re-examine the functions of our colleges and universities and to project ways in which they might strengthen their partnership with users of new ideas. Colleges and universities see their basic roles rooted in the functions of knowledge itself - the discovery of new ideas and new knowledge in research, the transmission of knowledge and new ideas in teaching, and the utilization and the utilization of knowledge and ideas in helping solve problems through extension and public service.

The intricate interrelation among these functions is critical. It is in these interrelations that the functions of knowledge are tested, as former President Perkins of Cornell (1965) observed: "Knowledge acquired must be transmitted or it dies. Knowledge acquired and transmitted must be used or it becomes sterile and inert. Even more the chemistry of knowledge is such that the very process of transmission, together with the discipline of application, stimulates and guides those who work at the frontiers of knowledge.

"Knowledge is in many respects a living thing--it grows and changes, and various of its parts are replaced as they become obsolete, but the dynamic nature of knowledge is traceable to this interplay and tension with its acquisition, transmission and application. It is this interaction that creates the needs for new knowledge, that brings inaccurate teaching to account, that shows what could be rather than what is. Taken separately, the three aspects of knowledge lead nowhere; together they can and have produced an explosion which has changed the world." Such pretensions of higher education are more than rhetoric, although there is never any shortage of rhetoric. There is a deep and continuing concern within colleges and universities about the interplay among research teaching and extension/public service programs. Even when there seems to be an evident lack of concern, there are, at the same time, substantial uneasiness and uncertainty about what new knowledge and new ideas are needed and how to put ideas and the results of research to work to help solve problems and improve the well being of people.

Some Factors Which Limit the Communication of New Ideas

With the great array of problems agencies and communities confront, there are many potential users of new ideas from the sciences, including social sciences, and engineering. Important among them are policy makers at all levels from the local neighborhood and community to the nation, local public officials, administrators of public and private community service programs, administrators of state and Federal agencies, community leaders, consumers--those who use the programs and services and citizens interested in understanding what is happening and trying to improve the quality and effectiveness of services.

Despite the good intentions of researchers, educators and users of ideas, one can readily identify a number of factors which make communication among them ineffective:

- lack of a system which effectively links users and researchers, including a clear identification of who the users are;
- mutual suspicion and distrust between researchers and decision makers on policy and programs;
- researchers designing research projects without direct contacts with potential users, and frequently with little information on their views of what the problems are;
- users not aware of what research is available, and not having had a voice in the formulation of the problems researched;

- difficulties researchers face in accepting the fact that from a user point of view partial information available at the time of action or decision is better than complete information after that time;

- lack of appropriate, periodic research information releases and publication for users;

- failure of researchers and research units in universities to follow-up significant relationships and exchanges that are initiated with users.

- failure to provide technical and educational assistance to users for interpretation of findings and for adapting them for use;

- research which has not been made a built in, continuing part of the program development and evaluation process; and

- lack of a broad based public education program which builds public literacy about social policy issues, policy alternatives and improvement of programs and services.

II. Building a New User/Researcher Partnership

What we are confronted with then is a major dilemma. On one hand there is the great need of users--such as those defined above--for new ideas about problems and about what might be done. One the other hand there is a high promise of university research, education and public service to produce and help put to use new ideas and alternative ways of dealing with problems. Both groups are frustrated and searching for a better relationship. What is needed is a new partnership between users and researchers - a partnership defined by two essential conditions:

1. Involvement of users and potential users of ideas with researcher in exploring difficulties in the functioning of local governments, social institutions, community services, and the action programs of state and Federal agencies in identifying specific issues and problems and in defining problems to be researched.

2. Continuing user-researcher contact throughout the research process including feeding back of research findings and interpretations on problems users helped identify.

User-researcher involvement would be an essential feature of the partnership, but it would be something more. It would be a basic strategy to improve communication and facilitate improvements in programs and services. When users and researchers are jointly involved in the formulation of problems, and where there is continuing contact throughout the research process, interest in research findings is increased. The feedback and interpretation of findings can be more effective. It follows also that the utilization of findings is more likely to occur.

Some Steps in Strengthening a User-Researcher Partnership

If we are to move toward a user-knowledge/research partnership, some important relationships need to be strengthened and/or established. Among them are these:

- Building on and strengthening established department, research unit, user contacts. This would obviously include an anlysis of what contacts already exist, and what new ones are needed to enable scientists and educators to be more effective in putting knowledge to work.
- Interpreting to users and the public the university's research role and functions.
- Interpreting the existing body of knowledge as it relates to issues, problems, and alternatives of major interest to users.
- Helping identify development and policy issues from the user point of view involving researchers, research administrators, department heads and other college or university administrators.
- Bringing user groups of all types to the campus:
    - to meet with researchers and administrators;
    - to help clarify issues which need to be researched;
    - to make possible direct researcher-user exchanges on the meaning and limitation of findings, implications of findings, and on the possible/probable impact of alternatives.
- Helping define user needs for continuing communication and how various media might be used to get findings to users.

- Helping utilize the instrumentality of extension, the agricultural experiment station, social science research centers and bureaus of applied research as mechanisms through which the university could contribute both to an understanding of and solution to social problems.
- Helping arrange new types of liaison between universities, departments and research units and a variety of significant user groups. Some consideration might be given to setting up new types of joint university-user advisory and technical groups, and having persons from user groups in a liaison capacity on campus for extended periods of time.

III. The Community Technology Initiatives Program: A Model of a Research and Education/User Partnership

Continuing analysis of the non-metropolitan/rural areas of the country has emphasized a number of conditions which effect the ability of smaller cities, towns and counties to apply science and technology to the solution of their problems. The problems run the gamut of water systems/water quality, waste treatment and management, land use, planning and decision-making, health care, including emergency medical services, education, public facilities, financing of public services, public involvement and many others. Among the major conditions affecting policies, planning and decisions about such services are:

1. A continuing flow of new developments in science and technology related to the services.
2. The problems of size and scale--increasingly a small community has the full range of cities from 50,000 to 100,000 or more but the conditions are very different due to problems of scale.
3. Small understaffed local governments and local service agencies which have great difficulty in accessing, assessing, and applying science and technology to their operators.
4. The weakness of or lack of working relationships or linkages to public or private research and development programs built on their specific needs.

What is lacking is a system which links small public jurisdictions to centers of science and technology, and which engages public officials, public agencies, scientists, engineers and educators in the search for and application of solutions to local problems. Such a system would substantially improve the performance capability of local governments and agencies.

The Community Technology Initiatives Program

The Community Technology Initiatives Program (CTIP) is a nation-wide organization established by 31 local governments, small cities and counties, to meet their needs. Public Technology, Incorporated (PTI), a research and development group in Washington, D.C., serves as the secretariat and provides program management. The PTI secretariat strives for maximum institutional interaction of CTIP with existing local government organizations such as state municipal leagues, the International City Management Association, and other regional and local groups. These interactions will be aided through a partnership with the National League of Cities. A grant from the National Science Foundation is the basic source of funding.

First Year Objectives

During the first year, CTIP worked toward these objectives:

1. Establish a needs assessment process for defining common local government issues that relate to science and technology.

2. Develop a priority problem agenda for localities below 50,000 in population.

3. Adapt and implement two pilot science and technology applications based on priority user needs.

4. Develop a program plan for the second and following years of CTIP operations. At minimum, the plan will include strategies for communicating and linking with Federal agencies, industry, universities and other institutions. A strong component of the program plan will be the distribution and utilization of program results.

A needs assessment process has been established using standard problem statement forms to assure consistency and completeness. The 31 local jurisdictions identified some 450 problems. These are being reviewed by representatives of the cooperating jursidictions. The statements will be ordered in some order of priority. Information and technology will be put together and tested to determine how adequately they meet the identified needs. Appropriate modifications will be made followed by a recycling of the process and further testing.

To link the jurisdictions to each other, seven circuits have been created. These circuits are to be served by "circuit riders" who will establish and maintain communication among the jurisdictions and with potential sources of assistance. The circuit riders will be either scientists, engineers or public officials, who have been recruited under the Intergovernmental Personnel Act. Public Technology, Inc. pays slightly over half of their salary and their travel. Cooperating Federal laboratories or agencies pay about half of their salary. The Science and Education Administration/Extension and the Southern Rural Development Center are cooperating in the support of a circuit rider to be based in Stillwater, Oklahoma.

Why the Science and Education Administration Has Become Involved in the Community Technology Program

The Community Technology Initiatives Program is an imaginative and innovative approach to help small communities use science and technology in solving their problems. It is user based or user driven as some have described it. Users and user needs are linked to the science and education resources of universities and laboratories in the public and private sector. The flow of information back to users is organized around their needs, and has high creditability because it deals with problems they help identify.

These ideas and other aspects of the CTIP strategy are essential features of the Land Grant model for research and education. Local governments, CTIP, the Department of Agriculture and the Land Grant Systems will gain from the collaboration. We each have much to give and much to learn from strengthening and/or putting in place a workable user-science-technology transfer system.

There is an important gain for research which is not explicit in the statements about the Community Technology Program so far. We are proposing it for inclusion in future revisions of the concept paper. The assumption is made that the research findings and the technology exist in the laboratories and universities and that what is needed is a system for bringing the knowledge and technology together and transferring them to users. This may be the case with many problems. On the other hand, an analysis of the problems identified by users will make it possible to separate those problems for which the research and the appropriate technology does exist from those where it does not, and will show where additional research and development are needed. We hope, in other words, that through a more effective user/education/research partnership to strengthen research planning processes, and to assure that research deals with high priority problems.

An agency such as the Farmers Home Administration has much to gain from the Department's and the Land Grant systems' participation in the Community Technology Program. These gains result from what will happen at the local and national levels. Building of capacity on the part of local governments and their public service departments through more effective application of science and technology to local problems will help assure effective use of Farmers Home grants, loans and other forms of assistance. Knowledge and technology specifically related to the solution of local problems will be available for use in thousands of communities across the country, sharply focusing attention on local problems and making it possible to clarify the Farmers Home Administration's specific research and technology needs--both those which relate to local use of their loans, grants, and planning assistance, and those which relate to the investment strategy from a national perspective. The greatest gain will come from the classification of Farmers Home needs for research and technology and the response of the research and educational system to those needs. "I'm happy to say that some very positive things are underway.

IV. Some Possible Payoffs

While it is not possible at the beginning of such efforts as discussed in this session and in this paper to know what the payoffs would be, there are some intriguing possibilities. More effective use of science and technology will help local governments and local public and private agencies build their capacity to solve their own problems. This is a major objective of the Land Grant System and the Department of Agriculture through its rural development programs. Great capacity and productivity in the programs and services of local governments will lead to significant improvement in the quality of life in small communities and rural areas.

The creation of a more effective research and educational partnership with local governments and state and Federal agencies will help sort out the significant issues at each level. It will tend to assure that the existing knowledge base and technology is utilized, and it will help direct research and education to problems of high priority.

Among those who will gain most are scientists and educators. A mechanism--a system--would exist to link researchers to significant users which they would not have to maintain through their effort alone. The Land Grant institutions would support the system. Researchers would likely experience the satisfaction that their work is on significant issues, that it would be used, and that it would have high social value in helping solve important problems. Extension would have the benefit of a stronger research and technology base. There would be the assurance, because of the partnership, that problems would flow from local public officials and agency administrators and staffs to education/research, and new knowledge and technology would flow back to users and potential users. This is the way the Land Grant System is supposed to work and the way it can work.

If we develop the innovations and re-invigorate our partnership with users, universities will be recognized as effective partners with communities, counties, states and the nation in improving the well being of people. And this phrase--the well being of people--is after all the significant end, and the hallmark of what we are about.

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Regional Perspectives in Rural Development: Responding to the Needs of Communities and Agencies* **

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At professional meetings of this type it is a rare opportunity to be a part of a session that systematically addresses the various aspects of a "real world" problem. And it is probably more unusual to have non-sociologists among us to help us focus on the important aspects of the problem from another perspective.

Mayor Byrne, I am very impressed with your grasp of the problems of Natchez. If we had local officials as well informed as you in all of our small towns, we would be well on the way to solving many of our problems. Though it may seem basic, the articulation of the problems is still a crucial first step. From your opening quote from Charles Rust in 1903, one has to question just how much progress we've really made. Problems of water, garbage, sewage, pollution and politics--somehow they sound vaguely familiar!

Your list of problems reminds me of a study we conducted in 1975 where we categorized community problems in 10 categories very similar to those you cite. Just providing that framework is helpful in organizing our thoughts. Various communities have since adopted the categories. Sometimes our greatest assistance is in providing a mechanism by which communities can systematically examine their situations.

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*A presentation at a session of the Annual Meeting of the Southern Association of Agricultural Scientists, New Orleans, Louisiana, February 5, 1979.

**A response to papers presented by Mayor Tony Byrne, Tom Marshall and Ed Moe.

You are very fortunate to be a participant in the Community Technology Initiative Program (CTIP). It is a very interesting and innovative approach to technology transfer and utilization. The idea of using circuit riders is an excellent one. More and more small towns are going to using professionals who serve more than one community. This is a good alternative to the extensive use of consultants. The arrangement is a lot like having your own community development specialist on a part-time basis. The other big advantage is the sharing of approaches and solutions between cities. It is not necessary for everyone to "reinvent the wheel" over and over again. Problems such as computerized financial management, routing of garbage pickups, senior citizen programs, recycling, sewage, and maintenance of streets and roads are not unique to Natchez.

In Kentucky, much of this role would be provided by Area Development District (ADD) staff (referred to as Councils of Governments, intergovernmental service agreements, regional planning organizations, and special districts in other states). Area Development Districts are mandated to provide basic administration, research and planning services to local units of government. However, even with this regional system, smaller cities report being underserved. In personal interviews with city officials in 81 percent of the 403 incorporated places in the state, 38 percent indicated not receiving any services from the ADD.

The second paper, by Tom Marshall, spelled out some of the areas of needed research in support of an agency such as the Farmers Home Administration. A major shift in emphasis, as I see it, is the expectation that state governments will play a much more active role in rural development efforts. As a result, states will need to be able to establish development priorities and investment strategies for their achievement. Those are expectations that I'm not sure states can presently fulfill. Stating the expectation and the states' ability to carry out these functions are two different things. I don't think that our state is yet in a position to "establish state development priorities for rural areas based on local and area priorities and to develop joint Federal/state/local investment stategies for meeting these priorities." They will need help in accomplishing those tasks. A capacity for establishing development priorities and the impact of strategies on the economic, social, physical and environmental aspects of rural life is essential. Universities can play an important role in helping to develop that capacity.

The Ed Moe paper examines the University's role in meeting the needs identified by communities and agencies. From my perspective as one who tries to bridge the gap between the academic institution and the "real world," I find the paper very insightful. Though I generally agree with the 10 factors listed as limiting communication of new ideas, I think it is necessary to go back one step further in order to understand the very basic features of academic institutions. First of all, universities view teaching and research as their primary goals. The majority of their professional staff are paid to pursue these two academic functions. Applied research and service activities are of lower priority and prestige within the institution of the university and among professional peers. Professors are thus primarily rewarded for the quality and quantity of their research and their effectiveness as classroom teachers. That setting does not encourage university faculty to involve themselves in the solution of such problems as have been suggested in the first two papers. This statement is supported by the evidence presented in the first paper that only 5 percent of the cities reported turning to universities for help. Let's face it. Universities are not servicing the needs of cities and public agencies. Or when they do, they want to make a five-year,

$100,000 project out of it; they want to do another survey; they talk in language that can't be understood, or they turn over a 300-page research report that is impossible to interpret.

A community or agency needs immediate answers in a form that can be understood. Communities are action oriented. They are interested in doing rather than studying, with specific recommendations rather than alternatives, with the product rather than the process. A common expression is "We don't need another study or survey. The problem has been studied to death. What we need is action."

The language, jargon and terminology of the university professional is a barrier in itself. Different disciplines can't even talk with each other, let alone effectively communicate with community officials and leaders.

There is no coordination of specialized input that might be available at the university. Universities are discipline-oriented, whereas community problems are miltidisciplinary in nature. There needs to be a coordinating mechanism, a team approach, across disciplines.

Another constraint of the university system is its inability to respond in a timely fashion. There is seldom a sense of urgency in a professor's research program, except maybe in the interest of his own professional advancement. A project with a duration of several years is the norm, not the exception. That time frame is completely unacceptable to the elected official with a term of office of only two to four years.

Though I agree with the concept of a closer user/research partnership as is described in the Moe paper, I'm not so sure but what it is an idealistic dream that is in reality beyond what we can reasonably expect to occur. I am convinced we need a system that links users and researchers, but I've come to believe that requires someone who can bridge the gap between the two. Someone who can speak, or at least understand, the language of the researcher, and yet is sensitive to the needs of the users. This allows for the interpretation and adaptation of technical knowledge, as well as feedback in the design of research topics. In reviewing the history of the Land Grant universities' service to agriculture, I would conclude that the system has been effective at transferring technology from researchers to users as it relates to agricultural production problems. One must recognize that in that system there exists a comprehensive research staff, extension or service-oriented specialists, and field representatives (county agents) trained in agriculture. We have never had this type of support in the solution of community problems.

Now a few remarks about the CTIP program. It seems to me it is an innovative approach in the application of technology to the solution of problems of towns and cities. Much of our discussion has been concerned with the university's response to cities and agencies, though I'm not sure CTIP will strengthen that relationship. It seems possible that help is merely being acquired elsewhere. An objective of the program states that "the plan will include strategies for communicating and linking with Federal agencies, industry, universities and other institutions." I see this element as crucial to the success of the linkage. One would have to wonder whether this program is in effect creating a new structure because the existing ones (universities, council of governments, etc.) haven't served this client group effectively. Is this, in fact, true? Or is CTIP supplemental to the existing systems?

Session 7

Rural Institutions

"Utilization and Evaluation of Banking Services by Suburban and Small Town/Rural Residents". Edward L. McLean, Joseph M. Prinzinger, Barbara C. Prinzinger, William T. Grazer, Gerald L. Waddle, and Beverly J. Clouse, Clemson University.

UTILIZATION AND EVALUATION OF BANKING SERVICES BY SUBURBAN AND SMALL TOWN/RURAL RESIDENTS

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INTRODUCTION

Institutional services have historically originated in response to consumer demands. Total population as well as population densities affect both the nature and quantity of services offered. It is not surprising that economic services are thought of as being geographically located where there are population centers. Walter Christaller's central place theory facilitates understanding of the economic and spatial principles (Christaller, 1950). According to Christaller, low order goods and services are offered and consumed in centers ranging from low order (cross-roads store) to high order (large metropolitan center). The order designation is determined primarily by total population (and consumers) but other economic factors are also important. Banking services, for example, would tend to originate and remain in a center with sufficient demand. It is unlikely that even one bank would be located in a low order place. Banks located in high order places would be expected to offer a wider range of services, due to additional competition, population, and money, than banks in low order places.

Phenonmena associated with location of institutional services, including banks, were studied long before central place theory appeared. John H. Kolb reviewed a half-century of research concerned with services in neighborhood centers, hamlets, villages, small towns, and agricultural service centers of varying size (Kolb, 1959). Kolb concluded that as technology was utilized in agriculture, as highways and motor vehicles came to rural areas, and rural farm population declined, services were increasingly concentrated in the larger population centers. Research conducted in the 1960's came to similar conclusions, but emphasized the importance of economics and inertia (Brunn, 1968; Martindale and Hansen, 1969; Yoesting and Marshall, 1969). Substitution of capital for labor and economics of scale contributed to the conclusion that fewer and more specialized services would expand in larger population centers. On the other hand, family businesses and traditional consumption habits would keep some seemingly inefficient operations in existence.

Urbanization and suburbanization patterns create sufficient demand for expansion of services. Researchers have concluded that there is some lag in provision of services where population increases occur (Martin, 1957; Zimmer and Hawley, 1956). This is particularly true for areas of massive residential development such as boom towns or government installations. Expansion of services in suburban areas is frequently orderly and accompanies residential development. This is because investments for services customarily originate from the adjacent urban and metropolitan areas.

The major determinant of bank location is customers. Prior and current expectations, preferences, income levels, and population concentrations determine the location and nature of economic services. It is suggested that these variables, associated with economic services, differ among population residence catagories. Generally, rural and small town residents base economic behavior on custom and occupational considerations, since the cost of obtaining additionsl information is high. Suburban residents generally emphasize convenience and a wide range of services (Kolb, 1959; Klietsch, et. al., 1964; Martindale, 1969; North Central Regional Center for Rural Development, 1974).

The topic of inquiry in this manuscript is banking services. It may be hypothesized that utilization of, desires for, and rating of banking services is more traditional and pragmatic for rural and small town respondents. Furthermore, suburban respondents will be expected to emphasize convenience and innovative services. Research testing these hypotheses is explained in the following section.

THE RESEARCH

The research reported in this manuscript was conducted in response to a request from one bank in South Carolina (Prinzinger, et. at., 1978). A fictitious name will be used for the bank; it will be termed the "ANON" bank. This bank has its main office and two branches in an incorporated place with a 1970 population of approximately 10,000 inhabitants. The market area for these facilities includes the rural area around the population center. The acronym "STR" will be used for this small town and rural market area. The bank has two branches in an adjacent county, located in smaller incorporated places, and in an area in which suburban development is taking place. The acronym "SUB" will be used for this market area. There was only one competing bank in the STR service center; there were several competing banks in the SUB area.

It was estimated that there were a total of 11,900 households in the STR market area and 7,900 households in the SUB market area, in mid 1978 when the research was conducted. The ANON bank had approximately 11,100 accounts (checking plus savings) in the STR area and 4,100 in the SUB area, in late 1977.

Pre-test telephone interviews were conducted in an area separate from the study market areas. Minor problems with several questionnaire items and the interview process were identified and corrected prior to the interviewing for the two market areas.

A questionnaire was administered through telephone interviews, May-July, 1979. Undergraduate students were trained to conduct the interviews. Residential telephone numbers were randomly selected from telephone directories coinciding with the market areas. Every thirtieth residential number was selected from the STR area directory and every thirty-eighth residential number was selected from the SUB area directory. A total of 213 interviews were completed from the STR households and 143 interviews from the SUB households.

Just over 500 telephone numbers were available for the interviewers. Many were deleted, essentially for three reasons: (a) some numbers were no longer in service; (b) some did not answer, even after repeated calls during different times of the day and different days; and (c) some refused to or were unable to answer the questions. A substantial number of potential respondents answered, appeared to be cooperative, but indicated that they had no checking account.

The aggregate socioeconomic level of all respondents completing interviews in this research is higher than the socioeconomic level of the overall population for the market area. The basic reason for this is that households not having a telephone were not included in the survey. Those households not having telephones may not have been able to answer questions about such services even if they were interviewed. Virtually all households with telephones were included in the sampling base, because very recent directories were used.

Information was obtained concerning characteristics of the respondents and current banking behavior. Guidelines for selection of questionnaire items concerning why people choose or remain with a bank and for evaluation of real and imagined banking services were obtained from Martilla and James (1977) and Anderson, Cox and Fulcher (1976). The reasons why people choose to utilize services of a given bank were termed "decision criteria", and these same criteria were used to evaluate services of banks (and other financial institutions if the respondent had knowledge of them). The evaluations were termed "performance ratings". For checking account decisions and evaluation, the following nine criteria were used: (a) recommendations, (b) friendliness (of bank employees), (c) service charges on checking accounts, (d) interest rates on loans, (e) location of bank, (f) hours of operation, (g) drive-in banking, (h) reputation, and (i) advertising. For loan account decisions and evaluation, the following seven criteria were used: (a) recommendations, (b) friendliness (of bank employees), (c) interest rates on loans, (d) reputation, (e) hours of operation, (f) location of bank, and (g) advertising.

In the case of decision criteria, respondents were asked if each item was: (1) not important, (2) slightly important, (3) important, or (4) extremely important to them. For purposes of quantification, numerical values were thusly assigned to these responses. In the case of evaluation, respondents were asked to rate each service: (1) poor,

(2) fair, (3) good, or (4) excellent. For purposes of quantification, numerical values were thusly assigned to these responses.

FINDINGS

Descriptive Results

Space limitations prohibit discussion of the characteristics of the respondents. This information may be obtained from the senior author. There are substantial no response (NR) frequencies because some respondents could not or did not provide answers to selected questions. Analysis in this section shall explore utilization of banking services by the respondents. Information concerning whether the respondent was a customer of ANON or another bank is presented in Table 1. To reiterate, there is one competing bank in STR and several competing banks in SUB.

Respondents were asked if any members of their household had an outstanding loan, other than home mortgage. Responses to this question are presented in Table 2. The suburban respondents were somewhat more likely to have borrowed money than were the small town/rural respondents. Current loans, other than home mortgage, were reported by 94.1 percent of the SUB sample.

Information regarding incidence of checking accounts on the part of respondents is presented in Table 3. The proportion of SUB respondents with checking accounts is somewhat larger than the proportion STR respondents with checking accounts. This finding is probably a function of socioeconomic characteristic of the two areas. The income, educational attainment, and occupational levels of the SUB sample were higher than for the STR sample.

Respondents were asked how many checks, on the average, they wrote each month. Responses to this question are presented in Table 4. The SUB respondents have somewhat greater frequencies in the higher checks per month categories. A total of 28.7 percent of the SUB respondents write more than 30 checks per month, compared to 17.3 percent of the STR respondents.

Information regarding whether the respondents prefer a bank with statewide branches or a bank not having statewide branches is presented in Table 5. The STR respondents were much less likely to select the statewide bank choice; 61 percent of the SUB sample reported a preference for a statewide bank. This finding tends to support the contention that suburban residents favor more cosmopolitan services and small town/rural residents the local and traditional services.

Respondents were asked if they preferred to pay one fee for comprehensive banking services or if they preferred a separate fee for each service. These data appear in Table 6. Although the distributions are similar for the two residence categories, these findings suggest that the SUB sample may be oriented toward pragmatic considerations (e.g., separate fees) as much as is the STR sample of respondents. The suburban residents, from the research reported here, may be concerned with economic expediency along with convenience items.

Respondents were asked to give "yes" or "no" answers to questions, "Do you think people should borrow money for ______?" The items were cars, boats, vacations, homes, education, and personal needs. The yes and no frequencies are presented in Table 7. The STR respondents were somewhat more likely to indicate no for education loans, and the SUB respondents somewhat more likely to indicate no for personal loans. Suburban residents would be expected to place emphasis on education, including loans for that goal. The small town and rural respondents in this study, accepted borrowing money, including personal loans.

Desires for and Ratings of Banking Services

Since performance ratings for STR and SUB are very similar, only the STR ratings will be discussed. Comparison of performance rating results for the two respondent categories is further muddled by the fact that there was one competing bank in the STR area and several in the SUB area.

The mean values for the nine checking account criteria are presented in Table 8. "Friendliness" and "location of bank" are ranked highest by both STR and SUB respondents. For total respondents, "hours of operation", "drive-in banking", "reputation", "service charges on checking accounts", and "recommendations" follow in rank order. "Interest rates on loans" and "advertising" complete the importance hierarchy. The SUB sample reported higher importance means for location of bank, hours of operation, and drive-in-banking. These convenience criteria are valued highly by the suburban residents.

The mean values for the seven loan account criteria are presented in Table 9. The STR respondents rank "interest rates on loans" first, and "reputation" is ranked third by these respondents. Importance means for SUB respondents were higher than for STR respondents on the following criteria: friendliness, interest rates on loans, recommendations, location of bank, and hours of operation. Location of bank, and hours of operation are certainly convenience items, and emphasized by the suburban residents.

To reiterate, performance ratings are not available for STR respondents. Performance ratings of SUB respondents, for checking and loans, are presented in Tables 10 and 11, respectively. "Attribute numbers" have also been added to these tables, which are simply the importance means (Tables 8 and 9) multiplied by the performance ratings. Attribute numbers are weighted averages that indicate both the importance of each criterion and how the respondents perceive it's performance. A fifth column on Tables 10 and 11 indicates the difference between attribute numbers of the respondents' bank and all other banks in the area that the respondent knew about.

Referring to checking account data on Table 10, the attribute numbers are largest (and the difference is the greatest) for the location of bank item, which is certainly a convenience criterion. The friendliness item also indicates substantial attribute numbers, which is a traditional criterion.

Referring to loan account data on Table 11, the attribute numbers are largest for friendliness and location of bank, for "your bank" and "all other banks", respectively. The attribute numbers are grouped rather closely; for your bank, numbers for six criteria range from 5.92 to 7.74; for all other banks, numbers for six criteria range from 4.34 to 5.12. This reveals that the suburban respondents believe that all six criteria are important when selecting and rating banks for loan-related services. The attribute numbers are generally larger for checking account ratings than for loan account ratings. This implies that the suburban respondents feel more strongly about selection and rating of banks for checking services. It is possible, of course, that loan accounts tend to be opened, by the same customers and in the same banks, after checking accounts are established. For this to occur, the customer would presumably be satisfied with services of the bank and would have considered the above loan-related criteria.

Respondents were given the opportunity to provide open-end responses to several questions. Responses to one question, relevant to the analysis of this manuscript, shall be reviewed. Respondents were asked whether they prefer a bank with statewide branches or a bank without statewide branches, and could give reasons for their choice. ANON bank is not statewide, but has five facilities. Some respondents, nevertheless, perceived ANON as a statewide bank.

In the STR sample, about an equal number of respondents indicated: (a) no preference, (b) bank with statewide branches, and (c) bank without branches. Those preferring statewide branches indicated: better access (26), security, stability, bigger (9), and convenience (6). Those preferring the more local banks indicated: friendly and personal attention (14), and convenience (9).

In the SUB sample, nearly one half of the respondents indicated a preference for statewide banks. Reasons for this included: better access (29), reputation (7) and convenience (6). The SUB respondents, preferring a bank without statewide branches, indicated: better service (8) and friendliness (4) as reasons. A larger proportion of the suburban residents preferred a bank with statewide branches and a larger proportion of these respondents provided open-ended reasons for their choice.

Market Segmentation:

Factor analysis, Chi-square and analysis, of variance statistical procedures were conducted. Results of these tests failed to support the concept of market segmentation. For a market segment to exist, one or more characteristics must be distinct from all other segments. This distinction was lacking on all measured variables. Segments of respondent characteristics were related to factors in the selection of a bank. However, these segments were not distinct in themselves. For example, while income was positively related to varying checking and loan factors, there was no one distinct level of income that was significant.

The factor analysis did generate items that were not only distinct, but are associated with hypotheses concerning custom and convenience in banking services. These two factors were "friendliness of the employees" and "hours of operation", and were positively related to income, education, and occupation. The implication of this relationship is important. It says that as income, education, and occupation rise, these two factors become even more important to people in their desires for banking services.

SUMMARY

The topic of inquiry in this manuscript is banking services. Research, conducted in two residential areas of South Carolina is reported. An overview of the body of knowledge resulted in formation of general hypotheses regarding utilization of, desires for, and evaluation of banking services. It is suggested that utilization of, desires for, and rating of banking services is more tratitional and pragmatic for rural and small town respondents and that utilization of, desires for, and rating of banking services is oriented towards convenience and innovative services for suburban respondents.

Descriptive research results provides some support for these hypotheses. The suburban residents wrote more checks per month and were more likely to favor banks with statewide branches, than were the small town/rural respondents. Other evidence - proportion of respondents having checking accounts and loans - is probably as much a function of socioeconomic characteristics as residence. The suburban respondents have (average) higher income, educational attainment, and occupational levels, and are more likely to have checking accounts and loans (other than home mortgage) than are the small town/rural respondents.

Analysis of responses regarding criteria for banking services provides additional evidence about small town/rural and suburban economic behavior. The suburban respondents emphasized location of bank and hours of operation for both checking and loan services. Drive-in banking was considered to be important for checking services, as well. Both groups of respondents rated the traditional criterion, friendliness, very high.

Analysis of responses regarding performance ratings of banking services provides support for theoretical generalizations about suburban residents. The checking account criteria receiving highest ratings were: friendliness, location of bank, hours of operation, and drive-in banking. The latter three criteria certainly correspond to expectations concerning economic behavior of suburban residents.

With respect to loan account criteria, interest rates on loans, recommendations, and reputation received moderately high ratings. The loan account considerations were less important to the suburban respondents than were the checking account criteria. Nevertheless, traditional and pragmatic considerations for selection and evaluation of banking services, appear to be important to some suburban residents as well as the small town and rural residents.

Statistical analysis failed to generate a profile of significant characteristics associated with desires for and evaluation of banking services. The factor analytic results did confirm the importance of income, education, and occupation in the utilization of banking services, and confirmed that the criteria, friendliness and hours of operation, were important to respondents of higher socioeconomic levels.

IMPLICATIONS

It must be emphasized that there is no intent to generalize these research results to all small town and rural and suburban residents. Since the findings do suggest conclusions about this topic, implications for the nature of banking services in the respective areas shall be stated.

It is believed that the suburban residents will continue to demand additional services and services oriented to convenience. Friendliness (of bank employees) is, nevertheless, important to all respondents based on this research. The suburban respondents do not reject pragmatic considerations.

The small town and rural residents, generally, are not demanding additional services, and are not particularly pragmatic in their desires for and evaluation of banking services. Friendliness of bank employees is of utmost importance. Hours of operation is the only convenience item emphasized by the small town and rural respondents.

It is believed that competition would alter the desires for and utilization of banking services in this small town and rural area. Only two banks exist in an area with nearly 12,000 households. This corresponds with the body of knowledge on this topic; i.e., services expand in suburban areas and not in small towns with rural hinterlands. The rationale is that income, educational attainment, and occupational levels are higher in suburban residential areas.

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Table 1

ANON Bank Research
Respondents by Bank and Market Area

Bank	STR		SUB		Total	
	No.	%	No.	%	No.	%
ANON	104	63.8	32	40.5	136	56.2
Other	59	36.2	47	59.5	106	43.8
Total	163		79		242	
(NR)	50		64			

Table 2

ANON Bank Research: Respondents by Incidence of Loans (Not Including Home Mortgage) and Market Area

Respondent Has:	STR		SUB		Total	
	No.	%	No.	%	No.	%
Loan(s)	78	84.8	48	94.1	126	88.1
No Loan	14	15.2	3	5.9	17	11.9
Total	92		51		143	
(NR)	121		92			

Table 3

ANON Bank Research: Respondents by Incidence of Checking Account and Market Area

Respondent Has:	STR		SUB		Total	
	No.	%	No.	%	No.	%
Checking Account	186	75.9	92	81.4	278	77.7
No Checking Account	59	24.1	21	18.6	80	22.3
Total	245		113		358	
(NR)	188		30			

Table 4

ANON Bank Research: Respondents by Number of Checks Per Month and Market Area

Checks Per Month	STR		SUB		*Total	
	No.	%	No.	%	No.	%
0-10	47	27.4	24	27.7	71	27.4
11-20	48	27.9	21	24.1	69	26.6
21-30	47	27.4	17	19.5	64	24.7
31-40	14	8.1	11	12.6	25	9.7
41-50	8	4.6	8	9.2	16	6.2
51-60	4	2.3	2	2.3	6	2.3
More than 60	4	2.3	4	4.6	8	3.1
Total **	173		87		259	
(NR)	41		56			

**Average for total = 27.8 checks.

Table 5

ANON Bank Research: Respondents by Bank Preference and Market Area

Prefer	STR		SUB		Total	
	No.	%	No.	%	No.	%
Local Bank	66	36.7	22	26.8	88	33.6
Statewide Bank	73	40.6	50	61.0	123	46.9
No Preference	41	22.7	10	12.2	51	19.5
Total	180		82		262	
(NR)	33		61			

Table 6

ANON Bank Research: Respondents by Fee Preference and Market Area

Fee Preference For Banking Services	STR		SUB		Total	
	No.	%	No.	%	No.	%
Prefer One Fee	93	53.8	43	46.7	136	51.3
Prefer Separate	80	46.2	49	53.3	129	48.7
Total	173		92		265	
(NR)	40		51			

Table 7

ANON Bank Research: Respondents by Loan Preference and Market Area

People Should Borrow For:	STR		SUB		Total	
	Yes	No	Yes	No	Yes	No
Car	163	80	81	32	244	112
Boat	102	141	45	68	147	209
Vacation	53	190	21	92	74	282
Home	164	78	79	34	243	112
Education	159	83	84	29	243	112
Personal	75	168	25	88	100	256

Table 8

ANON Bank Research Checking Account Decision Criteria Importance Means

Decision Criteria	Total Sample Mean	Rank	STR Area Mean	Rank	SUB Area Mean	Rank
Friendliness	3.51	1	3.46	1	3.57	1
Location of Bank	3.22	2	3.17	2	3.27	2
Hours of Operation	3.04	3	2.93	4	3.19	3
Drive-In Banking	2.88	4	2.85	5	2.92	4
Reputation	2.86	5	2.99	3	2.70	6
Service Charges on Checking Accounts	2.82	6	2.76	6	2.90	5
Recommendations	2.60	7	2.60	7	2.59	7
Interest rates on Loans	2.47	8	2.59	8	2.31	8
Advertising	2.05	9	2.05	9	2.06	9

Table 9

ANON Bank Research
Loan Account Criteria Importance Means

Decision Criteria	Total Sample Mean	Rank	STR Area Mean	Rank	SUB Area Mean	Rank
Friendliness	2.95	1	2.77	2	3.20	1
Interest Rates on Loans	2.90	2	2.79	1	3.05	2
Recommendations	2.62	3	2.48	4	2.80	3
Reputation	2.60	4	2.63	3	2.57	5
Location of Bank	2.38	5	2.23	5	2.58	4
Hours of Operation	2.35	6	2.21	6	2.54	6
Advertising	1.91	7	1.86	7	1.99	7

Table 10

ANON Bank Research

Determinant Attribute Analysis of Checking for SUB

Decision Criteria	Performance Rating		Attribute Numbers		Diff. of Attribute Numbers
	Your Bank	All Other Banks	Your Bank	All Other Banks	
Friendliness	2.91	2.25	10.39	8.03	2.36
Location Of Bank	2.92	2.50	10.76	8.07	2.69
Hours of Operation	2.58	2.14	8.23	6.83	1.40
Drive In Banking	2.79	2.21	8.15	6.45	1.70
Service Charges On Checking Accounts	2.27	1.53	6.56	4.42	2.14
Reputation	2.80	1.97	7.53	5.30	2.23
Recommendations	2.82	1.91	7.30	4.95	2.35
Interest Rates On Loans	1.75	1.25	4.02	2.87	1.15
Advertising	2.38	1.94	4.90	4.00	0.90

Table 11

ANON Bank Research

Determinant Attribute Analysis of Loans for SUB

Decision Criteria	Performance Ratings		Attribute Numbers		Diff. of Attribute Numbers
	Your Bank	All Other Banks	Your Bank	All Other Banks	
Friendliness	2.42	1.60	7.74	5.12	2.62
Interest Rates On Loans	2.04	1.62	6.22	4.94	1.28
Recommendations	2.42	1.71	6.78	4.79	1.99
Location Of Bank	2.57	2.25	6.60	5.78	0.82
Reputation	2.40	1.69	6.17	4.34	1.83
Hours of Operation	2.33	1.99	5.92	5.05	0.87
Advertising	1.93	1.56	3.84	3.10	0.74

Session 8

Community Satisfaction

"Leisure Pursuits and Their Meaning for the Elderly Population". Denise K. Lemmon and Hanns G. Pieper, University of Evansville.

"Organizational Structure, Supervision, and Job Satisfaction: A Study of their Interrelationships in a Rural Setting". Rosemarie Skaine and Satish Sharma, University of Northern Iowa.

"Perceived Satisfaction with Neighborhood Conditions and Services Among Blacks and Whites". Susan Carley, University of Georgia.

LEISURE PURSUITS AND THEIR MEANING FOR THE ELDERLY POPULATION

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Southern Association of Agricultural Scientists
New Orleans, LA. Feb. 4-7, 1979

At the present time there is a considerable amount of disagreement concerning the nature and relative importance of leisure roles in the role structure of older persons. For some theorists, particularly activity theorists, leisure roles are seen as important simply because they fill a vacuum produced by the loss of other roles. For these theorists content of the roles is not a key factor since virtually any role that maintains high activity levels is considered appropriate.

Other theorists place greater emphasis on the content of the leisure role. Several years ago Miller (1965) emphasized the notion that if leisure activities are to be viewed as valid roles they must contain norms that have meaning for the individual in terms of his value structure.

While there is disagreement concerning the nature of the roles there is also general agreement that leisure roles are potentially important roles for the elderly and this has led to a wide range of community and institution based leisure programs.

Unfortunately, most of these programs proceed with only vague notions of what kinds of activities should be included. It has been our experience that often such programs are based on little more than common sense notions of what older persons "should like" or what is "good for them". At the same time, gerontologists have not developed a data base which recreational therapists can rely on in planning their programs.

In this pilot study, and in the larger scale study now underway, we have concentrated on several factors which are of interest to recreational therapists. Basically we have focused on three questions. To what degree do older persons regard activities that are often a part of recreation programs desirable? Do older persons prefer individually based or group based activities? What general categoreis of activities are thought to be most desirable by older persons?

With regard to the last question, five general categories were delineated. 1. Activities which were perceived as useful to oneself. This category included activities which were helpful in day to day living and things that were enjoyable for their own sake. 2. Activities which would be pursued for monetary gain. 3. Passive activities or those that required little physical or psychic expenditure. 4. Service oriented activities where the leisure activity also provided some positive function for others. 5. Self improvement oriented activities or activities that involved some active participation and from which there was some personal gain, but of a nonfinancial type. Activities within each of the categories were subdivided on the basis of whether they were pursued individually or as a member of a group.

Methodology

The sample in this pilot study consisted of fifty elderly women who were chosen at random from a list of institutionalized elderly women. The sampling frame was limited to institutionalized persons because the vast majority of the recreational programs under consideration here are found in institutional settings. Even though our respondents were institutionalized few felt socially isolated and the vast majority conceived of themselves as being in good health. The respondents ranged in age from 57 to 99 with a mean age of 76.

Our schedule included several well known and tested scales. However, the index of leisure activities was constructed for this study. A list of 75 activities engaged in by older persons was compiled from earlier gerontological studies in this area. Each of the items was then placed on an index card and judges sorted the cards into the ten categories and ranked the items within categories. The items with the highest levels of agreement were included in the final index.

During the course of the interviews each of the respondents was asked to rate each of the events on a scale from 1 (least desirable) to 3 (most desirable). The average score for each activity is presented in Table 1. A composite score for each category was also calculated. These results are presented in Table 2.

Findings:

Perhaps the most interesting preliminary finding is that our older respondents had preferred activities of an individual rather than a group nature. This finding is not in consonance with at least one earlier study (Philips, 1961) nor does it conform to the notions of many therapists who have tendency toward emphasizing group activities. In our study the individual activities received an average rating of 1.82 while the group activities received a rating of 1.55. The average for all activities was 1.68. The three items receiving the highest ranking were individual activities and of the ten highest ranking activities, five were individual activities. In contrast eight of the ten lowest ranking activities were group oriented activities. It is also interesting to note that watching TV appeared as both an individual and a group activity. As an individual activity watching TV received a rating of 2.50, the second highest rating of any of the activities. As a group activity it ranked 13 with an average rating of only 1.66.

It was also interesting to note that counter to the activity orientation of many therapists the group of activities that received the highest overall ranking were the passive activities, with an average score of 2.31. Leisure activities that were perceived as being useful to oneself (both individual and group) received the next highest rankings. Self improvement related activities also received above average ratings. It is interesting to note that leisure activities with potential monetary or service implications received below average ratings of desirability. These low ratings were somewhat predictable since other studies have shown that older persons generally have low opinions of service related or volunteer activities

(Harris, 1976). The dominant attitude can probably be summed up in the question "If what we are doing is so necessary and important, why aren't we paid well for it?"

Conclusions:

Data based on a sample of fifty respondents can hardly be considered definitive. However, our data combined with the relative difficulty many leisure programs have in finding acceptance among the elderly do suggest that we had best ask some serious questions about the assumptions that underly present leisure programs. The data suggest that one reason why many group programs are not overly successful is that older persons may find individual activities more attractive. The preference is theoretically supported by other studies which tend to show that people become more introspective as they grow older.

The declining levels of energy available even to healthy older persons may well explain the preference of our respondents for passive activities. We would suggest that passive programs of leisure can be made to be just as productive if not more so than active programs of leisure. At the very least our data suggest that these passive programs might find greater acceptance among the elderly.

The importance of religious activities for the elderly is again underscored by our study. As can be noted from Table 1 this activity received the highest rating. Religious activities can be built into a number of leisure programs and may serve as a magnet to attract older persons.

We would like to emphasize that the present data are only applicable to women, and one could certainly expect that males would have a different set of values concerning leisure activities. Nevertheless, we feel the points raised in this study are interesting, important and worthy of further research.

Table 1. Rank and Scores of Activities

Rank	Type of Activity*	Activity	Mean Score
1	I	Meditation and Worship	2.52
2	I	Watch TV	2.50
3	I	Read for pleasure	2.42
4	G	Travel with others	2.20
5.5	I	Sewing and Handiwork	2.16
5.5	G	Bingo	2.16
7	G	Group participation in a health club	2.14
8	I	Shopping by oneself	2.12
9	I	Listen to radio or record player	2.02
10.5	G	Dining out with others	1.84
10.5	G	Dancing lessons with others	1.84
12	I	Attend a lecture on flowers by yourself	1.74
13	G	Watch TV in a group	1.66
14	I	Baby sitting for money	1.64
15	I	Read for information	1.62
16	G	Playing in a band or singing in a group	1.58
17	I	Make clothing for needy	1.46
18	I	Selling by yourself things you have grown	1.44
19.5	I	Attend classes	1.40
19.5	I	Volunteer to babysit	1.40
21	G	Playing checkers	1.38
22	G	Having a bake sale	1.34
23	I	Being a foster grandmother	1.32
24	I	Selling antiques by yourself	1.28
25.5	G	Visit Shut-ins	1.26
25.5	G	Party for charity	1.26
27	G	Group discussion about things such as sensible eating habits	1.18
28	G	Selling things you have grown in a coop.	1.16
29	G	Prepare dinner for a club	1.14
30	G	Having a yard sale with others	1.12

* I = Individual G = Group

Table 2. Rank and average scores for each category of activity

Rank	Score	Activity
1	2.31	Passive-Individual
2	2.01	Useful to self-Individual
3	1.87	Useful to self-Group
4	1.85	Self Improvement-Individual
5	1.73	Passive-Group
6	1.70	Self improvement-Group
7	1.45	Monetary-Individual
8	1.39	Service-Individual
9	1.22	Service-Group
10	1.20	Monetary-Group

Average Score for all Individual Activities = 1.82

Average Score for all Group Activities = 1.55

Average Score for all Activities = 1.68

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ORGANIZATIONAL STRUCTURE, SUPERVISION, AND JOB SATISFACTION: A STUDY OF THEIR INTERRELATIONSHIPS IN A RURAL SETTING*

by

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The problem of employee adjustment to the work environment has been investigated by the social scientists since the latter part of the nineteenth century. In 1880, Karl Marx drew up a questionnaire containing 101 items and sent twenty-five thousand copies to various workers' societies and socialist circles (Blauner in Bendix and Lipset, 1966:473). More recently, among the theorists, Herzberg speaks of his "overriding interest in mental health" and says that "industry must realize that it is one of the despoilers of man's efforts to achieve happiness" (Herzberg in Sirota and Wolfson, 1972:10).

It must be clearly understood that organizations are not only structures; they are environments within which people live and work. The worker in the organizational setting must be understood if we are to see clearly the impact and effects of inequality and inequity on an individual's job satisfaction. As would be expected, stratification in society, organizational theory and practice provide a larger context for examining inequality and inequity.

This paper is based on the findings of a larger study which measured perceptions of inequity on the part of merit system employees at the University of Northern Iowa located in Cedar Falls, Iowa. The focus is the study of job satisfaction as it was related to the organizational supervision as measured by the worker's perception of inequity and its source. The larger study was undertaken within the framework of selected theories of inequity as related to organizational structure, supervision, and job satisfaction. Eleven research hypotheses were developed. For purposes of this paper, however, those hypotheses were selected which related most directly to the issues of organizational supervision and perceived inequity. The specific attitudinal variables tested were merit system employee attitudes toward inequity arising out of gender, supervision, job class, professionalism and promotional opportunity. The study was based on a questionnaire administered to over 600 merit system employees at the University of Northern Iowa in the Fall, 1976. The questionnaire contained variables like job tenure, education, age, work experience, marital status, sex, residence, and thirty-three attitudinal items designed to measure the various perceptions of inequity. Over 300 responses were received which was considered sufficient for the purpose of the validity and reliability of the study.

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OVERVIEW

Does a worker treated unfairly simply express dissatisfaction? What are the consequences of unfair exchanges? What behavior is likely? These and related questions are basic to this paper. Questions such as these have been much puzzled over. Researchers have given much attention to the establishment of a "relationship between perceived injustice and dissatisfaction" (Homans, 1950, 1953, 1961; Jacques, 1956, 1961a; Patchen, 1959, 1961; Stouffer et. al., 1949; Vroom, 1964; Zaleznik et. al., 1958 in Adams in Berkowitz, 1964:268). Our focus generally is on inequity.

According to Stacy Adams, "Inequity exists for a Person whenever he perceives that the ratio of his outcomes to inputs and the ratio of Other's outcomes to Other's inputs are unequal" (Adams in Berkowitz, 1964: 280). Whenever two people exchange anything, there is the possibility that one or both of them will feel that the exchange was inequitable (Adams in Berkowitz, 1964:276). Perceived inequity often happens when a person exchanges his services for pay. A worker offers his education, intelligence, experience, training, skill, seniority, age, sex, ethnic background, social status and work effort. These qualities that a person brings to the work situation for exchange for pay are called inputs (Adams in Berkowitz, 1964: 276-277). The other side of the exchange is what the worker receives, i.e., pay, other rewards ranging from those pertaining to actual satisfaction with his work to those other environmental factors related to his work. When a worker does not receive in exchange what s/he feels s/he should, inequity results. Adams' analysis provides the functional definition of inequity for this paper.

Inequity is but one factor affecting our industrial society; another factor, even more pervasive, is inequality. David Reissman provides a useful analysis of inequality in society in his book Inequality in American Society. The main issue as he sees it is "that the source of inequality problems can be traced to the discrepancy between the ideal of equality and the reality of inequality" (Reissman, 1973:22).

Ironically, the discrepancy, Reissman points out,is also the grounding for our acceptance of inequality. Most Americans believe in equality of opportunity and inequality of situation and refuse to recognize the contradiction. Reissman contends further that institutional processes are self-correcting to the extent that existing inequalities will tend to be adjusted inasmuch as the values are basically sound (Reissman, 1973:13).

What, however, is the precise nature of inequality? Charles Anderson in his book The Political Economy of Social Class focuses on its economic origins. He sees a significant and consistent relationship existing between the two basic aspects of economic inequality, the inequalities of consumption and production (Anderson, 1974:78). He also sees distribution as a factor contributing to inequality.

He goes further and agrees with Reissman that class is at the root of social inequality (Reissman, 1973:119) (Anderson, 1974:76). Class involves the system of social stratification and the institutional processes that support it. Stratification is a critical problem because it restricts available opportunity and, consequently, reduces equality. Individuals become located in their social strata based on their talents and skills relative to the major social values of their society (Reissman, 1973:31, 32).

These terms inequity and inequality posed a rather difficult problem in the original study; namely, should both inequality and inequity be used to survey the attitudes of the merit system employees or does one serve the purpose better and if one, which one? After consideration, inequity was felt to more aptly describe the study's primary concerns. One person getting more than another may or may not mean inequality and inequality may or may not be considered inequity. Inequity works better because it is rooted in the person's perceptions and is therefore more precisely measurable.

Organization, Stratification, and Inequity

Organizational practice and stratification are the two elements clearly related to inequity. Three problem areas within the organization and related to the worker are motivation, reference group orientation and the organization's effect on personality. Scott studied motivation and found that individuals contribute to the organization in return for rewards. Blauner's analyses (1960:343-352) concluded that those workers who have the following things are more highly satisfied than those who do not: high prestige, some control rights, membership in an integrated work group and association with fellow workers off the job (Scott in Faris, 1964:514-5). Homans' "theory of distributive justice" (Homans, 1961:51-82, 232-264) includes the situation where an individual may feel guilty or dissatisfied if he receives rewards for more or less than he merits.

The problem with reference group orientation which is the member's knowledge of the groups with which he compares himself or to which he looks for standards, arises when conflicting group loyalties exist (Scott in Faris, 1964:516-7). Organizations have effects on personality; effects which come about both consciously and unconsciously. The conscious or manifest socialization is successful, according to Scott, if there is some degree of agreement between the demands of an organizational role and the individual's personality (Scott in Faris, 1964:518). Researchers, on the other hand, have been sharply critical of the latent or unconscious effects an organization has on an individual. Argyris (1957) gives a sweeping indictment of organizations when he argues "the demand which organizations impose on participants are completely inconsistent with the needs of emotionally healthy individuals" and Merton (1957:195-206) contends, "the very elements which conduce toward efficiency in general, produce inefficiency in specific instances". Blau (1955) found that "status insecurity appeared to differentiate ritualists from other workers" (Scott in Faris, 1964:519).

Organizations: Formal and Informal Authority

With these three problem areas in mind, it is proper to examine the nature of formal and informal authority. Formal authority is legitimated by values that have become institutionalized in legal contracts and cultural ideologies and by social constraints that demand compliance and which pervade the entire society. The informal is legitimated by the common values that emerge in a group, particularly by the loyalty the superior commands among group members; group norms and sanctions enforce compliance (Blau and Scott, 1962:144). Blau and Scott contend that superiors who command the loyalty of their subordinates are more likely than others to establish effective informal authority over them and thus to influence them (Blau and Scott, 1962:144).

The current studies of formal organizations tend to fall into two major groups: those following Weber in which the authority system is viewed as a power structure and those following Barnard in which it is viewed as a communication process. Hopkins, however, believes this division is neither useful nor necessary (Hopkins, 1965:). A significant approach which also must be considered is that of Parsons. (Appendix I provides a summary of Weber's, Barnard's and Parson's concepts of organizations.)

Parsons maintains that an organization produces something as its goal. This something can in some way be used by another system. What Parsons calls the something in all organizations analagous to a "market", Barnard calls "organizational purpose" (Parsons in Etizioni, 1965:33,34). For purposes of comparing these three theorists one might use the criteria in Weber's approach ("corporate group" defined as "a social relationship which is either closed or limits the admission of outsiders by rules . . . so far as its order is enforced by the action of specific individuals whose regular function this is, of a chief or 'head' . . . and usually also an administrative staff," Scott in Faris, 1964:486) and show how Barnard and Parson agree or differ from him (See Appendix 1 page 22).

Bureaucracies are changing. Organizations are larger, more complex, and rely more on technology. There is a move away from traditional bureaucracy toward more formless and less directive bureaucracy operating at a high level of efficiency as well as attempting to satisfy a member's interest (Blau and Meyers, 1971:118). These observations are not to be taken as indications that management is becoming obsolete, rather, that its form and functions are changing. Management's primary significance is no longer as the apex of the authority pyramid; rather, its central function is to design, in collaboration with a staff of experts, appropriate impersonal mechanisms of control (Blau and Scott, 1962:185).

The problem today for people like us who purport to be anti-authoritarian and anti-bureaucracy is, that our modern organization theorists and the organizations existing in our society are based on principles of stratification and inequality. Although theorists like Argyris argue well that value-altering interventions must precede organizational restructuring (Argyris, 1973:43), we believe that if we are to change our society, we must begin, not end, with the restructuring of our organizations.

Job Satisfaction and Inequity

If stratification in society and organizational theory and practice provide the larger context for examining inequity, focussing on the worker in the organizational setting enables us to determine the impact and effects of inequity on an individual's job satisfaction.

Defining as a single term job satisfaction is a basic problem according to Bonnie Carroll. Her definition follows the thinking of Ivancevich and Donnelly and of Herzberg, Maslow and Vroom, when she defines job satisfaction as "the favorable viewpoint of the worker toward the work role he presently occupies" (Carroll, 1973:2).

The earliest studies in job satisfaction attempted to determine the general satisfaction or dissatisfaction of the workers in different job situations. Subsequent studies, however, attempted to correlate such characteristics of the workers as age, education, socio-economic background, economic rewards, security and other soci-cultural conditions with their satisfaction and dissatisfaction (Carroll, 1973:2, 3)

According to Carroll, the traditional approach is simple "if the presence of a variable in the work situation leads to satisfaction, then its absence will lead to job dissatisfaction and vice versa" (Ewen, et. al., 1966 in Carroll, 1973:4). It can be explained by the diagram in Figure 1, i.e., a person's attitude about their work is on one end or the other. Argyris is a traditional theorist.

Job X X Job
Satisfaction ←———→ Dissatisfaction

Figure 1 Traditional Theory (Whitsett, Fall 1976)

Herzberg disagreed with the traditional and derived two sets of factors involved in producing job satisfaction, i.e., the work itself or job motivators, were separate and distinct from the factors that led to job dissatisfaction, i.e., environment in which a person does his job or hygiene factors (Herzberg, 1973:93-95).

To understand Herzberg one must understand the dichotomy in which the opposite of a substance is its absence, e.g., for the opposite of good is not good rather than bad. Although Herzberg's theory was a theory of mental health, its application to satisfaction has been most popular. Herzberg, unlike the traditional theorists, does not believe the opposite of job satisfaction is job dissatisfaction but rather no job satisfaction, for example:

Job Satisfaction $\xleftrightarrow{\text{task}}$ No Job Satisfaction

No Job Dissatisfaction $\xleftrightarrow{\text{environment}}$ Job Dissatisfaction

Figure 2. Job Satisfaction Theory (Whitsett, Fall 1976)

In other words, Herzberg believes you can be satisfied with your task and dissatisfied in your environment; it is not an "either-or" situation where either you are satisfied or you are not.

Maslow has varied and modified Herzberg's two-factor approach and according to Carroll (1973:7) developed a synthesis of the two frameworks (Herzberg and Maslow) which seems to point in the direction of a more workable and realistic model of job satisfaction. The parallel between their two theories is that the environment may influence the satisfaction with work itself (Esen *et. al.*, 1966 in Carroll, 1973:7). It is concluded that hygiene needs must be met before motivation needs can become operative. (Lahiri and Srivastve, 1967:262-264, and Bloom and Barry, 1967 in Carroll 1973:7). (See Appendix II for a comparison of the theories of job satisfaction proposed by Maslow, Argyris, Herzberg, McGregor and Likert.)

Job satisfaction theory is still developing, but we feel job dissatisfaction is aggravated by the structure of our modern organizations, the stratification within society, and the structure of work itself. Worker characteristics that cannot be modified, such as gender, call for change in societal attitudes. In our society so much inequity can be related to race, age and an individual's handicapped condition. Until attitudes related to all factors which contribute to inequity in our society are changed, such inequity will continue.

Within this theoretical and conceptual context, inequity will be discussed in the remaining portion of this paper as it is perceived by merit system employees at the University of Northern Iowa in general and the perceived supervisory sources of their inequity.

METHODS AND PROCEDURES

The Research Design

The present study, designed to measure perceptions of inequity within the merit system employees at the University of Northern Iowa, was conducted in the Fall of 1976. Operational definitions for key concepts were formulated and then an instrument was developed and pretested in order to collect the needed data to test the eleven research hypotheses. Finally, analyses were conducted to determine the extent of perceived inequity resulting from sex, job class, professionalism, promotional opportunity, immediate supervision, the supervision of Personnel Services, the administration and all supervision sources. For purposes of this paper, those hypotheses relating most directly to the issues of inequity due to sex and job class and of perceived supervisory sources of inequity were selected.

Location

The University of Northern Iowa is one of three state-supported universities and is located in Cedar Falls, a city of approximately 32,000. The total population of the Cedar Falls-Waterloo metropolitan area is about 106,000 (University of Northern Iowa Bulletin, 1976-1978:12). Founded in 1876 as Iowa State Normal School, the University has a student enrollment of approximately 10,000, a faculty of about 575, and a staff of non-academic employees of more than 680 with over 600 being merit system employees (Personnel Services, 1976).

The administrative regulations which most directly affect the non-academic personnel are the merit system rules. The Board of Regents has an official manual called the Merit System Rules, the purpose of which "is to give effect to the provisions of Chapter 19A of the [Iowa] Code to establish an efficient, effective and uniform system of personnel administration. . ., to provide equal employment opportunities for all and career opportunities comparable to those in business and industry" (Rules of the Merit System rev., 1976:1). At UNI, the administrative structure most directly involved in overseeing the merit system is the Division of Administrative Services (Policies and Procedures Manual, 1974:6-R and 9-R2). The Office of Personnel Services is within the structure of the Division of Administrative Services. The merit system employees are classified according to pay level and job type. In addition the merit system has a schedule of steps based on job tenure and performance which differentiates the salaries of employees in the same classification.

The Instrument

The instrument used in this study was a questionnaire divided into two sections. The first section was comprised of 11 "face sheet" demographic items designed to provide the respondent's characteristics of present job classification, job tenure, education, age, work experience, marital status, sex, income and residence. The second section was comprised of 33 attitudinal items pertaining to worker satisfaction.

A Likert-type, summated scale (Selltiz, et al., 1976:418) was designed to measure eight separate dimensions of worker's perceptions of inequity: sex, job class, professionalism, promotional opportunity, immediate supervision, the supervision of Personnel Services, administrative supervision and all sources of supervision.

The questionnaire used in this study did include a comment section. A Likert-type format was used. Items in specific inequity scales were mixed in presentation to disguise their conceptual basis. In order to free the questionnaire of the acquiescent response set, the items were mixed both in terms of order and wording; for example, item #24 read "The administration is trying to improve relations with UNI employees." is followed by item #25 which read "UNI takes unfair advantage of its employees." Another example of the attempt to free the questionnaire of the acquiescent response set is in item #14, "Professionalism is evident in Staff Personnel's attitude toward me." and in item #17 "Staff Personnel abuses its power at UNI."

Perceived inequity may take a number for forms. Our research takes special note of the following:

(1) Perceived inequity because of immediate supervision refers to that treatment of the employee resulting from the behavior of his/her immediate supervisor; for example, the supervisory behavior of a dormitory director to a dormitory secretary. Items 15 and 19 were the items designed to measure perceived inequity because of supervision.

(2) Perceived inequity resulting from Personnel Services refers to that treatment of the employees stemming from the actions of Personnel Services. Only recently (July 1, 1976) was the name Personnel Services adopted, thus it was more meaningful to refer in the questionnaire to Staff Personnel its previous title (Cottrill, 1977). Items 2, 14, 17, and 23 were designed to measure perceived inequity because of Personnel Services.

(3) Perceived inequity resulting from the administration refers to the response of the employee to the actions of the officers in the central administration such as the office of the Vice President for Administrative Services. Items 12, 13, 18, and 24 were designed to measure this inequity.

Finally, as stated earlier, items for immediate supervision, Personnel Services and administration were combined to form the measure of perception of inequity from all sources of supervision.

Data Collection

Data for the study were collected by using a campus mailed questionnaire. The questionnaire was sent to the entire population of 609 merit system employees of the University of Northern Iowa (excluding the four used in the pre-test). The instrument was accompanied by a cover letter explaining the purpose of the study and instructing the respondent where and how to return the completed questionnaire. The cover letter also included a statement instructing respondents that because this is a student project and is not being sponsored by the University administration, it is appropriate that it be completed on their own time rather than on the job. This statement was included as a result of a request on the part of an administrator. The entire population of merit system employees was drawn and analyzed. The adjusted population totaled 599. Over a period of six weeks, 303 questionnaires (50.6%) were returned, of which (300) (50.1%) were usable.

Analysis Design

The data collected were submitted to a variety of statistical analyses designed to test the research hypotheses. The design included simple frequency distributions, Pearson correlations, cross-tabulation, and chi-square, among other tests.

First, attitude item response categories were coded 1 to 5 depending on the degree of respondent agreement and disagreement with each item. Thirteen of the 33 items were worded positively. The remaining 20 items were worded in the reverse manner (i.e., a positive attitude was associated with respondent disagreement with the statement). The coding always assigned the highest score to the highest inequity perception.

Pearson correlation coefficients were computed at the .05 significance level to determine which items if any within an intended scale tended not to correlate with any of the other items.

Frequency and relative frequency distributions were constructed displaying the responses on all questionnaire items, both demographic and attitudinal. These distributions helped familiarize the researcher with the responses and it provided a descriptive way of viewing the sample. In addition, it was used to identify coding errors.

The descriptive hypothesis was evaluated using a simple proportion test. In this test, each type of inequity was examined with the null hypothesis stating that the proportion of respondents scoring above the scale's theoretical midpoint (neutrality) is not greater than the proportion of respondents below that theoretical midpoint; those responding at the theoretical midpoint were excluded.

To evaluate the relational hypotheses, relevant data were examined under two assumptions. In the first, inequity scales were considered at the ordinal level of measurement. In the second, the respondents were trichotomized into low, middle, and high groups on each inequity scale according to their total scores. In evaluating the relational hypotheses, the higher the score on each inequity scale, the higher the perceived inequity. These divisions were made, primarily, so that the middle group had as its midpoint the neutral point on the total scale and, secondarily, so that the three groups had nearly equivalent number of cases. From this data a chi-square test for existence of an association was conducted. If found to be statistically significant, the Cramer's V and/or Tau C were used to measure the strength of that association. For only those tests where both variables were ordinal, Tau C was used to measure the extent of a directional relationship between them. The second analysis assumed the inequity scales were at the interval level of measurement. For those tests where a nominal or ordinal variable was being related to the inequity scale, Eta^2 was used to determine the percentage of variation in the respondent variable that was explained by the independent variable. For those tests where the second variable was also interval, Pearson correlation coefficients squared (r^2) were used instead.

For the conditional hypotheses a grouped analysis under the assumption of ordinal level of measurement was done. Chi-square tests were used to determine the existence of association in conditional distributions. And if significant Cramer's V and/or Tau C were used to measure the strength (and directionality) of that association.

The 106 separate merit system job classifications were clustered into the four categories of Administrative/Clerical, Service - Skilled, Service - Unskilled, and Technical. Of the 300 respondents, the majority (54.3%) were in the Administrative/Clerical category. A rather high number of respondents, 9.0 percent, did not indicate their job classification. Since certain job classifications contain only a few individuals, the large number of "no respondents" probably indicated an effort to preserve anonymity.

The 15 pay grades of the merit system ("101" to "115" in order of increasing pay) were grouped into five categories. The largest number, 39.0 percent, were in the "104, 105, 106" category. If the "101, 102, 103" and "104, 105, 106" categories were combined, then 64.7 percent of the sample were classified as 106 or lower. Interestingly, even though the "Salaries for Regents Merit Employees" chart included pay grades 114 and 115, no jobs were classified at the 114 or 115 pay grade at UNI (Personnel Services, Fall, 1976). Only 23 (7.7%) of the respondents were in the "110, 111, 112, 113" category.

THE HYPOTHESES AND THE RESULTS

The attitudinal items were then analyzed consistent with the hypotheses which follow.

Hypothesis One

Descriptive null hypothesis posed:

$H_{1.0}$ Merit system employees will not perceive inequity in general.

Its alternative hypotheses were:

$H_{1.1}$ Merit system employees will perceive sex inequity.

$H_{1.2}$ Merit system employees will perceive inequity stemming from the source of immediate supervision.

$H_{1.3}$ Merit system employees will perceive inequity stemming from total supervision.

The results of the testing of hypotheses relevant to this article are indicated below. Table 1 summarizes the results.

$H_{1.1}$ In testing the hypothesis that merit system employees will perceive sex inequity, where the responses at the midpoint were excluded (which resulted in the sample being reduced by 30 to 202), 126 of the 202 respondents (62.4%) had inequity scores above the neutral point (score = 15). Seventy-six of the 202 (37.6%) responded below the midpoint. The z score equivalent for this proportion was 3.65 and $p<.01$ which was significant at less than our chosen level of significance (.05). Thus, we reject the null hypothesis for perceived sex inequity.

$H_{1.2}$ In testing the hypothesis that merit system employees will perceive inequity stemming from the source of immediate supervision, where the responses at the midpoint were excluded (which resulted in the sample being reduced by 28 to 204), 45 of the 202 respondents (22.1%) had inequity scores above the netural point (score = 6). One hundred fifty-nine of the 204 (77.9%) responded below the midpoint. The z score equivalent for this proportion was -9.62 and $p<.001$ but the relationship is once again in the direction opposite that predicted. Thus, we fail to reject his null hypothesis.

$H_{1.3}$ When total sources of supervision were considered, where the responses at the midpoint were excluded (which resulted in the sample being reduced by 18 to 214), 120 of the 214 respondents (56.1%) had inequity scores above the neutral point (score = 30). Ninety-four of the 214 respondents (43.9%) had inequity scores below the midpoint. The z score equivalent for the proportion was 1.79 and $p = .073$ which is greater than but approaching significance at the .05 level. Thus, we fail to reject the null hypothesis but the test results approached significance.

Hypothesis Two

Relational null hypothesis number four posed:

$H_{2.0}$ The merit system employees will not perceive the source of their inequity as stemming more from the supervision by the administration, by Personnel Services and from all supervision sources than from their immediate supervision.

Its alternate hypotheses were:

$H_{2.1}$ The merit system employees will perceive the source of their job class inequity as stemming more from the adminstration, Personnel Services and all supervision sources than from their immediate supervision.

$H_{2.2}$ The merit system employees will perceive the source of their promotional inequity as stemming more from the administration, Personnel Services and all supervision sources than from their immediate supervision.

$H_{2.3}$ The merit system employees will perceive the source of their professionalism inequity as stemming more from the administration, Personnel Services and all supervision sources than from their immediate supervision.

$H_{2.4}$ The merit system employees will perceive the source of their sex inequity as stemming more from the administration, Personnel Services and all supervision sources than from their immediate supervision.

Table 2 summarizes the results of testing this hypothesis.

$H_{2.1}$ In the grouped analysis for job class inequity by immediate supervision inequity concluded that X^2 was not significant, although it approached significance (p = .068), so immediate supervision inequity approached being related to job class inequity. The grouped analysis for job class inequity by Personnel Services inequity concluded that X^2 was significant beyond the .001 level (p<.001) so Personnel Services inequity is related to job class inequity. Judging from the Cramer's V statistic that relationship was moderate (V = .35). From the ungrouped analysis, the Pearson coefficient correlation (r) indicated a moderate relationship and was significant at the .001 level (r = .487, p = .001). We also determined Personnel Services inequity explained 24% of the variation in job class inequity (r^2 = .237). The grouped analysis for the job class inequity by administration inequity concluded that X^2 was significant beyond the .001 level (p<.001), so administration inequity is related to job class inequity. Judging from the Cramer's V statistic that relationship was moderate to strong (V = .48). From the ungrouped analysis, r indicated a strong relationship and was significant at the .001 level (r = .645, p = .001). We determined administration inequity explained 42 percent of the variation in job class inequity (r^2 = .416). The grouped analysis for job class inequity by total supervision inequity concluded X^2 was significant (p<.001) so total supervision inequity was related to job class inequity. Judging from the Cramer's V statistic that relationship is moderate (V = .44). From the ungrouped analysis, r indicated a strong relationship and was significant at the .001 level (r = .611, p = .001). We determined total supervision inequity explained 37 percent of the variation in job class inequity (r^2 = .373).

In job class inequity, then, the administration was seen as the strongest inequity source followed in order by Personnel Services, total supervision and immediate supervision.

$H_{2.2}$ The grouped analysis for promotional inequity by immediate supervision inequity concluded that X^2 was significant beyond the .01 level (p = .006), so immediate supervision inequity was related to promotional inequity. Judging from the Cramer V statistic that relationship was weak (V = .18). From the ungrouped analysis, r indicated a moderate relationship and was significant at the .001 level (r = .222, p = .001). We also determined supervision inequity explained 5 percent of the variation in promotional inequity (r^2 = .049). The grouped analysis for promotional inequity by Personnel Services inequity concluded X^2 was significant beyond .001 level (p<.001) so Personnel Services inequity was related to promotional inequity. Judging from the Cramer's V statistic that relationship was moderate (V = .38). From the ungrouped analysis, r indicated a strong relationship and was significant at the .001 level (r = .497, p = .001). We also determined Personnel Services explained 25 percent of the variation in promotional inequity (r^2 = .247). The grouped analysis for promotional inequity by administration inequity concluded X^2 was significant beyond .001 level (p<.001) so administration inequity was related to promotional inequity. Judging from the Cramer's V statistic that relationship was moderate (V = .34). From the ungrouped analysis, r indicated a moderate relationship and significance at .001 level (r = .472, p = .001). We also determined administration inequity explained 22 percent of the variation in promotional inequity (r^2 = .223). The grouped analysis for promotional inequity by total supervision inequity concluded X^2 was significant (p<.001) so total supervision inequity was related to promotional inequity. Judging from Cramer's V statistic that relationship was moderate (V = .43). From the ungrouped analysis, r indicated a strong relationship and was significant at the .001 level (r = .581, p = .001). We also determined total supervision inequity explained 34 percent of the variation in promotional inequity (r^2 = .337).

In promotional inequity, we found that Personnel Services was viewed as the strongest inequity source. The administration, total supervision and immediate supervision followed in that order.

$H_{2.3}$ The grouped analysis for professional inequity by supervision inequity found that X^2 was significant beyond .01 level (p = .005) so supervision inequity was concluded to be related to professional inequity. Judging from the Cramer's V statistic that relationship was weak (V = .18). From the ungrouped analysis, r indicated a moderate relationship and was significant at .001 level (r = .208, p = .001). We also determined supervision inequity explained 4 percent of the variation in professional inequity (r^2 = .043). The grouped analysis for professional inequity by Personnel Services inequity found X^2 was significant beyond the .001 level (p<.001), so Personnel Services was related to professional inequity. Judging from Cramer's V statistic that relationship was strong (V = .62). From the ungrouped analysis, r indicated a very strong relationship and was significant at the .001 level (r = .803, p = .001). We also determined Personnel Services inequity explained 65 percent of the variation in professional inequity (r^2 = .645). The grouped analysis for professional inequity by administration inequity found X^2 was significant beyond .001 level (p<.001) so administration inequity was concluded to be related to professional inequity. Judging from Cramer's V statistic that relationship was moderate to strong (V = .45). From the ungrouped analysis, r indicated a strong relationship and was significant at the .001 level (r = .599, p = .001). We also determined administration inequity explained 36 percent of the variation in professional inequity (r^2 = .359). The grouped analysis for professionalism inequity by total supervision inequity concluded X^2 was significant (p<.001). So total inequity was related to professionalism inequity. Judging from the Cramer V statistic that relationship was strong (V = .63). From the ungrouped analysis, r indicated a very strong relationship and was significant at the .001 level (r = .794, p = .001). We also determined total supervision inequity explained 63 percent of the variation in professionalism inequity (r^2 = .631).

In professionalism inequity, the employees perceived Personnel Services as the strongest inequity source. Total supervision, however, was next strongest followed by the administration and immediate supervision.

$H_{2.4}$ The grouped analysis for sex inequity by immediate supervision inequity found that X^2 was not significant (p = .686) so immediate supervision inequity was not related to sex inequity. The grouped analysis for sex inequity by Personnel Services inequity found that X^2 was significant beyond the .05 level (p = .044) so Personnel Services inequity was concluded to be related to sex inequity. Judging from Cramer's V statistic that relationship was weak (V = .15). From the ungrouped analysis, r indicated a moderate relationship and was significant at .001 level (r = .181, p = .003). We also determined Personnel Services explained 3 percent of the variation in sex inequity (r^2 = .033). The grouped analysis for sex inequity by administration inequity found X^2 was significant beyond the .05 level (p = .023) so administration inequity was concluded to be related to sex inequity. Judging from the Cramer's V statistic that relationship was weak (V = .16). From the ungrouped analysis, r indicated a moderate relationship and was significant at the .001 level (r = .185, p = .002). We also determined administration inequity explained 3 percent of the variation in sex inequity (r^2 = .034). The grouped analysis for sex inequity by total supervision inequity concluded X^2 was significant (p = .023) so total supervision inequity was related to sex inequity. Judging from the Cramer V statistic that relationship is weak (V = .16). From the ungrouped analysis, r indicated a moderate relationship and was significant at the .001 level (r = .181, p = .003). We determined total supervision inequity explained 3 percent of the variation in sex inequity (r^2 = .034).

In sex inequity, the administration and Personnel Services were perceived nearly equal as the greatest inequity source. Total supervision was next. Sex inequity, however, was not related to immediate supervision inequity.

The results of testing this hypothesis would indicate a rejection of the null hypothesis with all four kinds of inequity, i.e. the merit system employees perceived the source of their job class, promotional, professionalism and sex inequities as stemming more from the administration, Personnel Services and all supervision sources than from their immediate supervision.

CONCLUSIONS

More than 50 percent of the merit system employees responding in this study at the University of Northern Iowa perceived some inequity in all areas tested with one notable exception: they did not perceive inequity resulting from their immediate supervision. The range was from 56.1 to 73.4%.

The relation between the various perceived inequities and the source of supervision proved to be both interesting and statistically significant. The fact that the merit system employees as a whole did not perceive inequity resulting from their immediate supervisor but did perceive it as stemming from both the administration and Personnel Services, says something about people and institutions (see Table 1). Blau and Scott say that the theoretical analysis implies that superiors who command the loyalty of their subordinates are more likely than others to establish effective informal authority over them and thus to influence them. They also point out hierarchical structure interferes with interpersonal communication (Blau and Scott, 1962:144). Blau and Scott's analysis seems to be supported by this study.

The immediate supervisor, therefore, generally speaking, is perceived as more aware of and responsive to the employees' needs and will be perceived as working to humanize the job. The other supervisory sources, being more remote and given the responsibility for implementing the institutional rules, are perceived as being less accessible, less communicative and more responsible for the inequities perceived. In other words, the merit system employees do not blame particular people for their perceived inequity but rather the impersonal institution.

The conclusions drawn from the research findings generally support the literature review. Inequity is perceived by workers within a bureaucratic structure. The employees do perceive the source of greatest inequity being the more remote supervisory personnel, personnel services and the administration.

IMPLICATIONS

Since this study revealed merit system employees, indeed, did feel their greatest sources of inequity as being Personnel Services and the administration, it was felt at the time of completion of this study that implications exist for these elements of the University, implications which, if acted upon, could make UNI a better place to work. It would have been productive if agents of change could have persuaded the University's policy makers to apply the theories summarized previously. According to Whitsett, the suggestions of those five theorists on management, if used in a coordinated way, yield the maximum effectiveness (1975:44).

It was part of the agreement with and at the request of Dr. Douglas, then the Director of Personnel Services, that the people responsible for the original study would upon its completion, meet with him and discuss implications for change. Dr. Douglas did not meet with us. The President of the University and the President of the Board of Regents were each sent a copy of the original study. The President responded by forwarding the study to Dr. Douglas, Director of Personnel Services. The President of the Board of Regent's did not acknowledge the receipt of the study.

Yet, if they were applied to UNI, the integrative assumptions would produce effective and humanizing change. A few of the possible changes follow. Assumption one stated that "the majority of employees have a desire to use a significant portion of their skills and abilities at work". The study raises doubts as to whether supervisory sources at this University believe this assumption. Specifically, the results of testing showed that employees perceived Personnel Services and the administration demonstrated inequity in their treatment of them. Statements in the open-ended section of the questionnaire indicated that incorrect classification of jobs was one of the problems. Many employees felt they were doing more work and different work than their job description dictated. One change indicated by this finding for the University would be to either overhaul the present classification system or use it more fully. For example, there were no jobs in the top two classifications (114-115), even though the pay scale provides for these classifications. Jobs seem to be classified not according to the work required but according to the sum available to fund a position.

On another dimension, Ernest Lowe states that although work itself may indeed be meaningless, that it may simply take a person's time, work does give a person identity. Work helps her/him relate in society. Because it provides this identity, work is extremely meaningful. A person may even define her/his worth by her/his work (Lowe, n.d.). If Lowe is correct that work defines a person's identity and worth, and we believe he is, then the motivator factors, as Herzberg defines them, become important aspects of the university's employee-related responsibilities. By humanizing the work setting, the University would do more than provide an individual a job.

A key implication for this University as well as for any management in any business lies in the last all inclusive assumption: "Management's challenge, therefore, is to structure the work experience in such a way that both employees' needs for satisfaction through use of their abilities and the organization's need to be economically effective are met." Whitsett expands this assumption by saying

> . . . the ultimate objective of such an integration would be to evolve an organization in which the employee, when striving to meet his own needs, would also inevitably contribute maximally to the organization's needs--that is, an organization that is truly integrated (or in Maslow's terms--synergistic) in the sense that

> the same activities lead to both maximum organization effectiveness and maximum need satisfaction of employees. (Whitsett, 1975: 47-48, italics mine)

As to how to achieve this objective, even the theorists go their own ways and suggest a variety of strategies. Whitsett, however, feels that most of the techniques derived from behavioral science theorists can be thought of as falling into one or more of three broad categories: (1) information-gathering techniques that are used to diagnose organizational problem; (2) techniques directed at altering the structure of the organization; and (3) techniques directed at the interaction processes of the organization. As might be expected, these techniques when specifically applied are not mutually exclusive. They are all directed at integrating the needs of the organization and the individual (Whitsett, 1975:49).

Whitsett points out that it is not unusual to find organizations using structural and/or process oriented strategies without having employed any adequate information gathering techniques (Whitsett, 1975:49). We feel this happended in the recent efforts of Personnel Services. It is apparent that Personnel Services is making some efforts, at least on the process-oriented strategies such as their recent initiated publication, Intercom, and various on-the-job training sessions, but to our knowledge, at the time of the study no broad based information gathering techniques preceded the use of these approaches.

We believe, therefore, the University, and Personnel Services in particular, could use these findings to learn more about employees' desires, attitudes, beliefs, behavior, interests and opinions. Personnel Services should engage in additional information gathering in order to diagnose more accurately organizational problems and then work to rectify the problems they discover. It would be difficult for us to say, however, on the basis of this study alone, what specific structurally-oriented processes should be altered at this University. We do make the following specific suggestions:

1. Many immediate supervisors are already overburdened with tasks that a merit system employee could effectively perform if both the supervisor and the employee felt the worker was being paid properly for such work.

2. As noted earlier, a need exists to redefine and rewrite many of our current job descriptions and to reclassify some of them upwards.

3. The job types, especially those held by women, should be examined for sex stereotyping and for their implications for promotional opportunity. Fox example, can a secretary bump up to a higher classified non-secretarial job or is the job class of secretary considered to possess non-transferable, non-promotable skills?

We wish to conclude on the note with which this study began. Sirota and Wolfson noted that clear philosophical continuity exists between earlier and more recent theorists, e.g., Marx speaks of the estrangement people feel as a result of their work; Herzberg, of mental health; Gardner, of human satisfaction and dignity (Sirota and Wolfson, 1972:19). It is our hope that this study lies within the mainstream of that continuity and, by so being, provide assistance to the University of Northern Iowa and other similar institutions as they undertake the process of self-corrective change. If it is, and if it does, then we would be able to say as does Maslow:

> Insofar as my own effort is concerned, it has in any case always been an ethical one, an attempt to wed science with humanistic and ethical goals, --- with efforts to improve individual people and society as a whole (Maslow, 1965:3).

Table 1

$H_{1.0}$ Merit System Employees Will Not Perceive Inequity in General

Dimensions of Inequity	N	f*	Percent	f**	Percent	z scores	P
Sex	202	126	62.4	76	37.6	3.65	.010
Supervision, Total	214	120	56.1	94	43.9	1.79	.073
Supervision, Immediate	204	45	22.1	159	77.9	-9.62	.001
Job Class	223	154	69.1	69	30.9	6.16	.001
Professionalism	216	122	56.5	94	43.5	1.91	.056
Promotional	218	160	73.4	58	26.6	7.80	.001

*Frequency of respondents scoring above neutrality in total score on inequity scale.

**Frequency of respondents below neutrality in total score on inequity scale.

Table 2

$H_{2.0}$ The Merit System Employees Will Not Perceive the Source of their Inequity as Stemming More from the Supervision of the Administration, of Personnel Services and from all Supervision Sources than from their Immediate Supervision

H_A	Variable by Variable	Grouped Analysis		Ungrouped Analysis		
		X^2	V	r	p	r^2
$H_{2.1}$	Job class inequity by immediate supervision inequity	p=.068	.14	.136	.001	.018
	Job class inequity by Personnel Services inequity	p<.001	.35	.487	.001	.237
	Job class inequity by Administration inequity	p<.001	.48	.645	.001	.416
	Job class inequity by Total Supervision inequity	p<.001	.44	.611	.001	.373
$H_{2.2}$	Promotional inequity by immediate supervision inequity	p=.006	.18	.222	.001	.049
	Promotional inequity by Personnel Services inequity	p<.001	.38	.497	.001	.247
	Promotional inequity by Administration inequity	p<.001	.34	.472	.001	.223
	Promotional inequity to Total Supervision inequity	p<.001	.43	.581	.001	.337
$H_{2.3}$	Professional inequity by immediate supervision inequity	p =.005	.18	.208	.001	.043
	Professional ineqaity by Personnel Services inequity	p<.001	.62	.803	.001	.645

Table 2 (continued)

$H_{5.0}$ The Merit System Employees Will Not Perceive the Source of their Inequity as Stemming More from the Supervision of the Administration, of Personnel Services and from all Supervision Sources than from their Immediate Supervision

H_A	Variable by Variable	Grouped Analysis		Ungrouped Analysis		
		X^2	V	r	p	r^2
$H_{2.3}$	Professional inequity by Administration inequity	p<.001	.45	.599	.001	.359
	Professional inequity by Total Supervision inequity	p<.001	.63	.794	.001	.631
$H_{2.4}$	Sex inequity by immediate supervision inequity	p=.686	.07	-.005	.467	.000
	Sex inequity by Personnel Services inequity	p=.044	.15	.181	.003	.033
	Sex inequity by Administration inequity	p=.023	.16	.185	.002	.034
	Sex inequity by Total Supervision inequity	p=.023	.16	.181	.003	.033

APPENDIX I

Comparison of Organizational Theories

Weber	Barnard	Parsons
1. corporation has fixed boundaries--some people included--others excluded from its membership	same	concept of collectivity
2. rules or social norms supported by all members	most important difference, Weber focused on power legitimated by beliefs of its members whereas Barnard focused on communication structure which allows working together in pursuit of common interests	
3. the order is "legal" not "conventional" there is differentiation of power among members		
4. it is "associative" rather than "communal"	included some "communal" Gemeinschaften	
5. it is engaged in carrying out continuous purposive activity of a specified kind	same	major emphasis by Parsons on special goals is what distinguishes it from other types of social systems

(Scott in Faris, 1964:486, 487, 492)

* The following common set of integrative assumptions underlie most, if not all, of five major behavioral science theorists. These assumptions, according to Whitsett, concern the nature of the problem facing contemporary managers. In his article "Making Sense Management Theories" he summarizes them as:

> Assumption 1: The majority of employees have a desire to use a significant portion of their skills and abilities at work.
>
> Assumption 2: Most of our business and industrial organizations do a relatively poor job of offering their employees opportunities to use their skills and abilities.
>
> Assumption 3: Failure to utilize talents and skills often makes work a less satisfying experience than it could otherwise be.
>
> Assumption 4: This same failure makes the organization less economically effective than it could otherwise be.
>
> Assumption 5: Management's challenge, therefore, is to structure the work experience in such a way that both employees' needs for satisfaction through use of their abilities and the organization's need to be economically effective are met.

(Whitsett, 1975:44-47)

APPENDIX II

Comparison of Job Satisfaction Theorists

		Assumption	
Theorist	#1*	#2	#3
Maslow	Self actualization. Peak experiences are an index to self actualization.	Synergic organizations are rare. The island of Eupsychia is the only organization that is synergic and it exists as an ideal.	Mental health is related to satisfying work.
Argyris	Self actualization. 6 items lead to it: 1) Passivity to activity; 2) Dependence to Independence 3) Few ways of behaving to many ways of behaving; 4) Short to long time span; 5) Quickly dropped interests; 6) Lack of self-awareness to an increase in self-awareness.	1) Employees will have adaptive activities. 2) Organization will have a low level of interpersonal competence. It will have basic pyramidal values.	There will be a spiral of oppressive leadership.
Herzberg	Psychological growth. A person's Abraham nature. 6 steps to psychological growth: 6) Real growth 5) Individuation 4) Effectiveness in ambiguity 3) Creativity 2) Relationships 1) Knowing more	Organizations focus more on hygiene factors, i.e., more pay, better working conditions. These address a person's Adam nature only or a person's need to avoid pain.	Produces mental illness. People become hygiene seekers.
McGregor	Theory Y. A person likes to grow, likes to work and play, likes to lead, and is optimistic.	Theory X. A person is inherently lazy, does not like to work rather follow than lead, and is pessimistic.	McGregor agrees with Herzberg, but does not use his label. A person has a lack of Y behavior.
Likert	Employee centered management.	Job centered leadership.	Likert implies the point, but talks about the effects on groups, not on individuals.

* The assumptions are listed following the Table

Assumption

Theorist	#4	#5
Maslow	1) Maslow simply asserts this assumption (Maslow, 1965:95-96); 2) Absenteeism: he is in agreement with Argyris but does not use the same labels; 3) The organizational survival will be destroyed. He agrees with Argyris.	Maslow is the most clear on this point in that he says that synergy or the needs of people and the needs of the organization must be integrated. In a synergistic organization conditions have to be good for both the worker and the organization.
Argyris	1) Employees will have adaptive activities like absenteeism and turnover. 2) The organization will be "dry rot" if it continues. The employees will attack from the inside and the consumer will attack from the outside	
Herzberg	There is an escalating demand for environmental satisfaction. This gets expensive.	
McGregor	Self confirming prophecy: if we use Theory X, people become Theory X or people become what you manage. Similar to the pygmalion effect.	
Likert	1) Over time an organization's costs rise when it is job centered. 2) Principle of supportive relationships: the amount of energy an employee gives to an organization is in relation to the amount an organization meets his needs.	

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PERCEIVED SATISFACTION WITH NEIGHBORHOOD CONDITIONS AND SERVICES AMONG BLACKS AND WHITES*

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INTRODUCTION

Within the span of the past two decades, Americans have witnessed changes in the gaps between Blacks and whites along socio-economic lines. While much attention has been focused on education and income differentials, little research has been done on the relationships between these factors and the extent to which people are living under conditions which are satisfactory to them. Though it is worthwhile to learn how attempts at improving Black income and educational opportunities have fared, an understanding of the impact of such improvements upon life styles is equally important. For example, does the fact that a Black family is middle-class in terms of income and occupation necessarily affect its ability to send the children to good schools or to escape neighborhoods affected by industrial pollution? Are racial and socio-economic characteristics related to satisfaction with environmental conditions and neighborhood services, when the latter two are taken to be indicative of some aspect of life quality? These are questions addressed in this study.

RELEVANT LITERATURE

For some years now, there has been considerable interest among social scientists in the issues of quality of life and life satisfaction. Much of the research done in this area has focused upon community and residential satisfaction as indicators of overall satisfaction with the quality of life experienced by individuals. Research of this nature has been based upon the assumption that satisfaction with the community of residence is an important factor in determining general life satisfaction. Some demographers have attempted to establish a relationship between community or residential satisfaction and the decision to migrate (e.g., Bach and Smith, 1977), while other researchers have investigated connections between residential choice and community satisfaction (e.g., Ermuch, 1974; Friedman, 1975).

Research along these lines has generally utilized two measures of community satisfaction: contentment with the physical environment and satisfaction with public services provided in the residential neighborhood.

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Evidence concerning the importance of perceived quality of services to community satisfaction is fairly inconclusive. Though Bach and Smith (1977) found that satisfaction with medical, public and commercial services was associated with the decision to leave a community and move elsewhere, other investigators have concluded that services have little or no bearing upon community satisfaction. Both Ermuch (1974) and Friedman (1975), for example, arrived at the conclusion that services are of little importance in determining satisfaction. Also critical of the emphasis upon public services, Goudy (1977) argued that such factors as contentment with social relationships and extent of citizen participation are more strongly related to community satisfaction than is satisfaction with services.

There has also developed an interest in the roles that race and social class play in determining quality of life in general and community satisfaction in particular. Campbell, Converse, and Rodgers (1976) suggested Blacks are less pleased with housing and neighborhood quality than are whites. They learned that racial discrepancies remained even when socio-economic differences are controlled for. Based upon their research, it seems that race is more potent a factor than social class with regard to community satisfaction.

Schuman and Gruenberg (1972) also found race to be associated with satisfaction, though their investigation was limited to perceptions of the quality of public services, rather than neighborhood quality. They maintained that Blacks living in racially homogeneous neighborhoods are less content with services than are Blacks who live in integrated neighborhoods. Though social class did not appear to be an important factor in Campbell, et al.'s study (1976) of the quality of neighborhood conditions, Schuman and Gruenberg suggest that quality of services is related to the general socio-economic status of a neighborhood. In short, they argue that both race and social class are associated with perceptions of service quality.

Evidence provided by Durand and Eckhard (1972) suggests that community satisfaction is unrelated to the socio-economic status of a neighborhood. Using education and income as indicators of social class, they learned that residents of socially heterogeneous neighborhoods are no less satisfied than those residing in neighborhoods which are more socially homogeneous.

SOURCE OF DATA

Data used in assessing class and racial differences in satisfaction came from the 1975 Annual Housing Survey (AHS) conducted by the U. S. Bureau of the Census for the Department of Housing and Urban Development. The survey had about 62,000 occupied sample units which represented an expanded total of 72 million households. It dealt with characteristics of occupants, housing and neighborhood quality, and characteristics of recent movers. Data were collected by means of personal interviews from October through December of 1975.

The public use AHS data tape provided for 6 panels which can be used as different representative national samples. For this study a sample of 3,000 was selected from one of the panels on a probability basis to be representative of important analytical variables (metro/nonmetro status, race, age, sex, family income, etc.)[1]

RESEARCH DESIGN

Since the interest was in racial and socio-economic comparisons of levels of satisfaction, whites and Blacks in the 3,000 subsample were divided into two groups on the basis of whether the head had graduated from high school. The justification for using educational attainment as a proxy for socio-economic status is that education is an important determinant of both economic prosperity and general "life chances."

ANALYTICAL GROUPS*

	TOTAL	WHITE	BLACK
TOTAL	2,911	2,608	303
NOT HIGH SCHOOL GRADUATE (Low education)	1,086	894	192
HIGH SCHOOL GRADUATE (High education)	1,825	1,714	111

* Forty-five persons of other minority races were excluded as were forty-four cases in which there were no responses to relevant questions on the neighborhood conditions and satisfaction items in the 1975 AHS.

Due to limitations imposed by the data set, consideration of general life satisfaction or dissatisfaction was not possible. The research design entailed an implicit assumption that community satisfaction is an important aspect of overall satisfaction with the quality of life.

As indicators of dissatisfaction two index variables were created out of responses to the questionnaire items related to neighborhood conditions (NDS) and services (SDS). The dependent variable pertaining to satisfaction with neighborhood conditions, which we will refer to as NDS, was derived by a two-fold process. A dissatisfaction score on each of twelve items pertaining to a specific condition was first obtained by grading the choice of responses according to the level of dissatisfaction expressed.[2] A total NDS score was then obtained by summing the individual scores on each item. The possible range of NDS scores ran from 0 to 60.

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[1] This sample was developed by Sam T. Davis, III of the Institute for Behavioral Research for use in the USDA-UGA Internal Migration Projects. General instructions on the development of subsamples from the national AHS were provided by the Bureau of the Census.

[2] The items were: Street noise, traffic, state of repair, lighting, and passability; prevalence of crime, trash and litter, abandonded or run-down structures, industrial activities, odors or smoke; and airplane noise. The gradations were as follows: No, the condition is not present = 0, Yes, the condition is present = 1, Condition is present but no bother = 2, Condition is bothersome = 3, Condition is not so objectionable that I wish

The second dependent variable (SDS) was used as an indicator of dissatisfaction with services provided within the neighborhood. As with items dealing with neighborhood conditions, responses were graded in such a manner that levels of dissatisfaction could be ascertained. This involved combining two items pertaining to each service in order to derive the extent of dissatisfaction[3] with individual services. A total SDS score was obtained by summing individual satisfaction scores on all six items. The minimum score was 0 while the maximum was 18. It should be kept in mind that neither of the indicators used is measuring the actual presence or absence of the described conditions and services. Instead, NDS and SDS are measures of the quality of these two aspects as perceived by the respondents.

Five independent variables were utilized: metro/nonmetro residence, income, region, tenure, and age of the household head.[4] Residence, region, and tenure were dichotomous variables coded 0 and 1:

	CODES*	
	0	1
RESIDENCE	Nonmetro	Metro
REGION	NonSouth	South
TENURE	Renters	Owners

* Residence (within or outside a census-defined Standard Metropolitan Statistical Area); Region (within or outside the census-defined South). Tenure (Owner residences included cooperatives, condominiums and houses if owned or being bought by the residents. Renter residences included those for which cash rent was paid or for which rent would ordinarily have been charged, but was not paid by the present residents.)

The age of the household head at the time of the interview was provided in seventeen varying-width intervals and was used in that way. Total family income, in dollar amounts, was also used as given.

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to move = 4, and Condition is so objectionable that I wish to move = 5. Differences between recoded responses of one and two or between responses of three and four were due to the few instances where the interviews had neglected to ask the extent of dissatisfaction with particular conditions.

[3] The items were: Adequacy of public transportation, schools, shopping, police and fire protection, and health clinics. The gradations were as follows: Service is satisfaction = 0, I don't know if the service is adequate = 1, No, it is not satisfactory or No, it is not satisfactory, but I don't want to move = 2, and It is so unsatisfactory that I wish to move =3.

[4] The model used is shown at the bottom of table 2.

Analyses included comparisons of NDS and SDS means and percentage distributions for the four race-education groups to ascertain differences in their general levels of dissatisfaction. In addition both NDS and SDS were regressed upon the five independent variables. Differential patterns of dissatisfaction across the four groups were evaluated in this manner.

RESEARCH FINDINGS

Prior to consideration of satisfaction levels, a comparison of the characteristics of the four race-education groups seems desirable (Table 1). Respondents with higher education are generally younger than those with less education. High education Blacks are somewhat younger than whites with comparable education. Though educational attainment for high-whites and high-Blacks is comparable, their respective incomes are not. Whites with at least a high school degree earned a median annual income of roughly $12,770 which exceeds that of their Black counterparts by approximately $4,600. The income of high education Blacks is, in fact, more similar to low education whites since the former earn only about $1,100 more than the typical white with lower education. This is in part due to the fact that females, generally earning less income than males, made up 39 percent of the Black household heads. Of course, some of this discrepancy may be attributed to the fact that higher-educated Blacks are also younger on the whole than respondents in the other three groups.

Other differences among the groups are also apparent. Whites are more likely to own their homes than are Blacks. This is the case irrespective of educational attainment. Education appears to make a slight difference, since higher-educated Blacks are somehwat less likely to be renters than are Blacks with less education. Tenure is mentioned because of the relationship of ownership to perceived quality of neighborhoods.

The groups vary to some extent by regional distribution and metro status as well. Low-educated Blacks more often live in the South than do members of the other groups. While the average pattern across all groups is residence in a metropolitan area, this is most true of high-education Blacks and least true of low-education whites.

Differences among the groups in dissatisfaction with neighborhood services are inconsequential when the means are considered. However, a somewhat different picture emerges if one looks at the distributions on the SDS scores. Slightly more than a third of the white household heads indicated no problems at all relative to neighborhood services, another third found one or two services to be less than desirable, and the remainder either noted several different problems or found one or more of them so serious that they wished to move. There was not much variation in this pattern between whites with low and high education. A higher proportion of Blacks than whites perceived no problems associated with services, but also a higher proportion of Blacks noted several problems or some of a very objectionable nature. The more highly educated expressed more dissatisfaction than those with less education.

Though differences in the group means on neighborhood conditions are slight, variation by race and educational attainment is noted from the distributions on the scores. Blacks in general were less satisfied than whites. More than half in each education group cited a number of problems or else one or more of such great significance that they desired to move. Blacks with higher education were more dissatisfied than less-educated Blacks. Only 12.6 percent of high-educated Blacks, for example, expressed high satisfaction. Variations of this sort did not exist among whites. Between a fourth and a fifth of the whites perceived little or no dissatisfaction with conditions in their neighborhoods and roughly a fourth noted a number of problems or one or more of such a serious nature that they wished to move. As with SDS, variations among low and high education whites were minor.

The question now to be considered is whether certain residence locations, and socio-economic and demographic characteristics are related to the perception of quality. Are the factors of equivalent importance despite the race or education of the individual perceiver? In an attempt to address these questions, both NDS and SDS for each race-education group were individually regressed on metro status, region, tenure, income and age (Table 2).

When NDS was considered, differences among the groups emerged. The total explained variance was quite low for all four groups, and for Blacks, none of the variables appeared to be significantly associated with the perceived quality of neighborhood conditions. For whites with high and low education, age is inversely related to dissatisfaction. Younger heads of household were apparently less satisfied with conditions than were older ones. Also households residing within metropolitan areas perceived conditions to be worse than did those living elsewhere. For whites with high education, income was also an important factor in determining the perception of conditions; higher incomes were associated with lower rates of dissatisfaction.

The regression of SDS on the set of independent variables for the four subsamples yielded somewhat higher proportions of explained variance than those derived from the regression of NDS. The race-education groups appeared to be fairly similar in the kinds of factors which were significantly associated with dissatisfaction with services. Whites and low-education Blacks had similar relationships between metro status and SDS; in all three cases, residence in a metropolitan area was associated with lower levels of dissatisfaction with services.

For the two groups of white respondents and the more-educated Blacks, region was an important factor in the determination of dissatisfaction. According to our findings, dissatisfaction with services was greater in the South, though this relationship did not exist among less-educated Blacks. Tenure was significant only in the case of low-educated whites. Surprisingly enough, homeownership was associated with higher dissatisfaction scores.

DISCUSSION AND CONCLUSIONS

Our findings concerning dissatisfaction with neighborhood conditions suggest that there is a tendency for Blacks to be more dissatisfied than whites. This finding is consistent with the observation of Campbell, et al. (1976). As Campbell suggested, differences in the perceived quality of objective conditions may be due to the probability that Blacks live in neighborhoods which often are inferior to white neighborhoods in terms of physical conditions.

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According to Campbell, Blacks compare themselves to the population at large, not to other Blacks, which would explain racial differences in dissatisfaction.

Among whites, educational attainment seems to be of no importance in determining dissatisfaction with either conditions, or services, since white means and distributions on the scores are quite similar. On the other hand, Blacks with high as opposed to low education differ in their perceptions of both neighborhood conditions and services. Contrary to what one might expect, the more-educated Blacks were less satisfied with both aspects of neighborhood quality. Perhaps this is less attributable to actual differences in quality than it is to discrepancies in expectations. High educated Blacks are considerably younger than others and are thus more likely to have come of age during or after the period in which most civil rights legislation was enacted, thus raising their expectations beyond those of older Blacks.

In summarizing evidence suggested by values of NDS and SDS scores, it seems that low education, as a proxy for low social status, is not related to dissatisfaction with neighborhood quality among whites. Educational effects are present among Blacks, however. Blacks with high educational attainment are the most dissatisfied of the four subsamples, despite the fact that their median income ranks second highest among the groups. The relationships between race and dissatisfaction are also evident through comparison of low education Blacks with whites of similar education level and a comparison of the higher educated groups with one another.

At the start of the paper, the question was posed as to whether improved opportunities for Blacks actually enhanced their lifestyles. While we cannot directly answer this question since we are working with perceptions of conditions and services as opposed to more objective measures of these phenomena, our results do suggest some interesting racial and educational comparisons. In the case of conditions with neither of the Black subsamples does any independent variable prove to be significant in its association with the perceived quality of neighborhood conditions. Blacks are generally less satisfied than whites with services and conditions, but the source of this relative dissatisfaction is unclear. While there is no doubt that other unspecified variables play a role in explaining dissatisfaction, the fact of being Black in and of itself is an important factor. Increased education and resulting improvement in income and housing opportunities do not insure satisfaction with the residential environment. Race remains an important factor in determining opportunities and satisfaction with life style.

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Table 1. Percentage Distributions of NDS and SDS Scores and of Region, Metro Status, Tenure, Age of Household Head, and Income, by Race-Education Group.

		Race			
		White		Black	
Variable	Total	Low Education	High Education	Low Education	High Education
NDS:	100.0	100.0	100.0	100.0	100.0
0-1	22.1	20.5	23.6	21.4	12.6
2-3	15.9	16.7	16.4	10.9	12.6
4-5	16.9	17.0	16.7	15.7	21.6
6-7	10.9	12.0	10.3	10.9	9.9
8-9	8.9	9.2	8.7	9.9	7.2
10 and over	25.3	24.6	24.3	31.2	36.1
Mean	6.4	6.3	6.2	7.4	8.7
SDS:	100.0	100.0	100.0	100.0	100.0
0	36.3	35.0	35.3	47.5	42.4
1-2	32.7	32.0	34.5	25.5	22.5
3-4	17.8	19.1	17.8	10.7	18.9
5-6	8.4	8.0	8.5	9.7	8.1
7 and over	4.8	5.9	3.9	6.6	8.1
Mean	2.1	2.2	2.0	2.0	2.3
Region:	100.0	100.0	100.0	100.0	100.0
Northeast	23.1	22.7	23.8	20.4	18.9
North Central	26.8	28.2	27.6	13.8	27.9
South	32.6	34.0	28.3	61.7	37.9
West	17.5	15.1	20.3	4.1	15.3
Metro Status:	100.0	100.0	100.0	100.0	100.0
Nonmetro	32.5	40.9	30.1	29.2	8.1
Metro	67.5	59.1	69.9	70.8	91.9
Tenure:	100.0	100.0	100.0	100.0	100.0
Renter	34.8	33.2	32.0	58.3	49.6
Owner	65.2	66.8	68.0	41.7	50.4
Age:	100.0	100.0	100.0	100.0	100.0
14-24	7.9	4.5	9.3	4.7	17.2
25-29	11.5	5.3	15.1	3.6	20.7
30-34	10.2	5.7	12.9	4.7	15.3
35-39	8.4	6.0	9.5	7.8	11.7
40-44	7.6	7.4	7.9	6.8	7.2
45-49	9.4	8.9	9.4	10.9	10.8
50-54	8.6	8.4	8.4	13.5	4.5
55-59	8.5	10.1	7.5	12.0	3.6
60-64	8.5	11.5	7.0	10.9	1.8
65-69	6.6	9.5	5.1	9.9	1.8
70-74	5.2	9.1	3.1	6.8	4.5
75 and over	7.6	13.6	4.8	8.4	0.9
Median	45.4	55.3	40.3	51.1	31.2
Income:	100.0	100.0	100.0	100.0	100.0
0-2,499	8.1	10.5	4.7	26.2	11.4
2,500-4,999	14.1	20.3	9.6	24.7	16.7
5,000-9,999	23.5	30.9	19.0	28.4	26.2
10,000-12,499	11.0	11.2	10.8	10.1	14.0
12,500-14,999	9.4	8.9	10.5	3.0	6.1
15,000-24,999	23.6	13.9	30.8	6.6	17.5
25,000 and over	10.3	4.3	14.6	1.0	7.9
Median	$10,183	$7,098	$12,770	$4,054	$8,195

Source: U.S. Department of Agriculture, ESCS, and University of Georgia, IBR, Cooperative Internal Migration Projects. Data are from U.S. Bureau of the Census, Annual Housing Survey, 1975, United States and Regions, Part B, Indicators of Housing and Neighborhood Quality. Current Housing Reports, Series H-150, Washington, D.C. U.S. Government Printing Office, 1977 (and related data tapes). Data are based on a sub-sample of 3,000 cases (see the text).

Table 2. Coefficients Derived from Regression of NDS and SDS Scores on Metro Status, Income, Region, Tenure, and Age of Household Head, by Race-Education Group[1]

		Dependent Variable=NDS[2]			Dependent Variable=SDS[2]		
Group	Independent Variable	Unstandardized (B)	Standardized (B)	$\bar{R}^2$	Unstandardized (B)	Standardized (B)	$\bar{R}^2$
Whites (Low Education)	Intercept	6.779	0	0.017	2.309	0	0.076
	Metro Status	1.429**	.106		-0.794**	-.165	
	Income	-0.000	-.043		0.000	.006	
	Region	-0.158	-.011		0.502**	.101	
	Tenure	0.714	.051		0.686**	.137	
	Age	-0.153**	-.089		-0.033	-.054	
White (High Education)	Intercept	7.240	0	0.018	2.363	0	0.020
	Metro Status	1.214**	.082		-0.485**	.102	
	Income	-0.000**	-.077		-0.000	.043	
	Region	-0.235	-.015		0.312**	.064	
	Tenure	-0.269	-.018		0.185	.039	
	Age	-0.130**	-.068		-0.009	.015	
Black (Low Education)	Intercept	5.800	0	0.018	3.295	0	0.124
	Metro Status	1.672	.099		-2.039**	-.336	
	Income	0.000	.018		-0.000	-.050	
	Region	-0.387	-.024		-0.143	-.025	
	Tenure	1.208	.076		0.063	.011	
	Age	-0.005	-.002		0.045	.058	
Black (High Education)	Intercept	12.925	0	0.067	2.426	0	0.075
	Metro Status	-0.739	-.023		-0.630	-.062	
	Income	-0.000	-.141		-0.000	-.052	
	Region	-2.792	-.158		1.425*	.249	
	Tenure	-1.202	-.069		-0.397	-.071	
	Age	-0.063	-.022		0.059	.065	

* Values significant at .05 level.
** Values significant at .01 level.

[1] The model used was: $Y'=a + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5$.

[2] A negative beta value indicates that dissatisfaction is higher when values on the independent variables are lower. For example, a beta of -0.153 associated with age implies that the dissatisfaction if higher among younger respondents.

Session 9

Issues in Agricultural Higher Education

"Commitment of Students to Agriculture as an Occupation". John E. Dunkelberger and Jerri L. Hayes, Auburn University.

"Production Agriculture: An Emerging Occupational Orientation for Women in Colleges of Agriculture". Thomas A. Lyson, Clemson University.

"Backgrount Characteristics and Goals of Agriculture Students: 1890-1862 Comparisons". Dannis A. Salter and Joseph J. Molnar, Auburn University.

COMMITMENT OF STUDENTS TO AGRICULTURE AS AN OCCUPATION*

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Agriculture, like any basic economic industry, must recruit personnel to fill various statuses and to perform essential roles. Education serves a vital function in this recruitment process. Both at the secondary and college levels, courses and curricula relating directly to agriculture exist. Such educational specialization is important at the college level where preparation is received for the variety of agricultural and agribusiness occupations. It is from this college educated group that many future agricultural leaders emerge.

Purpose

The purpose of this analysis is to focus attention on a contemporary cohort of college students enrolled in curricula offerred in Schools and Colleges of Agriculture at 1862 and 1890 Land-Grant Universities in the South.[1] The decade of the 1970's has been marked by increasing student enrollments and by the introduction of new curricula providing specialized training often periferal to production agriculture and agribusiness. For these reasons it is of interest to inquire into the extent to which the present generation of college students in agriculture are committed to agriculture as an occupation and career.

Concept of Commitment

The key concept in this analysis is that of commitment, particularly commitment to agriculture. Sociologists usually view commitment in a

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[1] The population of universities includes all 1890 universities located both in and out of the south plus Tuskegee Institute, a private university. Similarly, Texas Tech, a non-Land-Grant University, is included along with all 1862 institutions located in the 13 states comprising the Southern Region.

social-psychological sense as a subjective predisposition toward an end. According to Theodoreson commitment is "a feeling of obligation to follow a particular course of action or to seek a particular goal" (p. 61). The term implies a personal psychological dedication of one's resources such as time and energy to the attainment or maintenance of some valued state (Williams, p. 20-37).

A distinction can be made between public and private commitment (Krech, et. al. p. 228). Both forms of commitment involve a decision relative to some goal; but if this is not communicated to others, it remains private and will not result in a stable goal orientation. Conversely, a commitment made publicly has been found to be quite effective in maintaining continuity of action and goal attainment (Hovland, et. al.).

Applying this conceptualization to the choice of a college major in agriculture, we are specifying the specific goal object as training leading to occupations in agriculture. From this reference point an operational definition of what constitutes a commitment to agriculture as an economic industry and to agriculture as an occupation can be formed.

Measuring Commitment

One manifestation of commitment to agriculture would appear on the surface to be represented by the selection of a major or curricula provided within a School or College of Agriculture. However, as noted previously, curricula vary considerably from one university to another and cover a wide range of disciplines from basic science to production agriculture. As a single indicator of commitment, this criterion of selecting a major appears to be important but limited in scope. A better measure would be one that involves several independent indicators of commitment and reflects the cumulated socialization in agriculture covering a long period of time.

Following the argument that commitment to a goal maybe either public or private, we have attempted to develop measures exemplifying both types. Public commitment to agriculture is operationally defined as any behavioral act that indicates a choice among alternatives. Several such behavioral choices were documented in this study. These include taking agriculture courses in high school and perceiving them as influencing the choice of a college major, participating in high school 4-H or FFA programs and serving as a leader, having worked on a farm or in an agriculture related job, and being influenced to enroll in an agriculture major by persons holding agriculture related occupations. In all, five separate behavioral actions were quantified. Scores were assigned and summated across all action dimensions to produce a single behavioral commitment index. Table 1 summarizes the number and percent of students who reported each of the five behavioral indicators of commitment to agriculture and shows the index value or score assigned to each type of commitment. The range of index scores possible was 0-13.

A similar procedure was followed in constructing an attitudinal commitment index. Attitudes are viewed as private commitments to a goal. Here only a subjective orientation is developed relative to agriculture as a valued end. For our purposes attitudinal commitment was operationally defined as a positive orientation to agriculture as an occupational field. Four statements were used to indicate private commitment. These are presented in Table 2 along with the frequency and percent of students responding with favorable agricultural orientations to each. Index values or scores assigned were 0 to 2 resulting in a possible range across the index of 0-8.

Data Source

Spring term enrollment lists for 1977 were obtained from the Deans of all 1862 universities in the southern region and all 1890 universities in the U.S. (See Molnar, et. al. for a more detailed discussion of the field procedures.) A 15 percent sample of agriculture students attending the 1862 universities was selected. A complete enumeration was used of those attending 1890 universities. Mail questionnaires were administered over a three month period. The overall adjusted return rates were 74 percent for 1862 students and 60 percent for 1890 students. The resulting samples consisted of 2,535 useable 1862 and 1,016 useable 1890 questionnaires. Because of the differences in selection procedures for the two samples, each sample is analyzed independently.

Findings

Two indexes of commitment to agriculture - behavioral and attitudinal - serve as the major dependent variables in this analysis. Table 3 shows the distribution of agriculture students on these measures. Behavioral commitment is a highly skewed phenomenon among both 1862 and 1890 students. The lack of behavioral commitment was most accute among students at 1862 universities where 19 percent had an index score of 0 and 58 percent had scores of 2 or less. Behavioral commitment was somewhat higher among 1890 students where only 11 percent had 0 scores and 40 percent scores of 2 or less. Conversely, the proportion of students with a fairly strong behavioral commitment designated by a score of 7 or higher was only 13 and 24 percent respectively among 1862 and 1890 agriculture students.

Attitudinal commitment, on the other hand, was normally distributed among both groups of students. On this index the higher the commitment score the more favorable the orientation toward agriculture as an occupation and the greater the commitment to agriculture as a goal. The modal score was 4 for both 1862 and 1890 students. Minor variation between the two student samples was reflected by slightly higher scores among 1890 students. The proportion of 1890 students with scores of 6 or above was 31 percent compared to 27 percent for 1862 students.

Our purpose at this juncture was to analyze the kinds of variable characteristics that differentiate students in their behavioral and attitudinal commitment to agriculture. To accomplish this task we utilized multiple regression techniques to evaluate the relationship between 16 selected characteristics grouped into three factors reflecting family background, student attributes and personal influences[2] with level of commitment. Tables 4 and 5 present the results of this analysis in the form of zero-order correlation coefficients and standardized regression coefficients. Statistical significance was determined on the basis of F values at or exceeding the .01 level.

Correlation Analysis

Behavioral Commitment. Zero-order correlations revealed that behavioral commitment is related to virtually all of the specific characteristics of 1862 and 1890 students tested. Significant correlations were observed between all four measures of the family background factor and all four measures of personal influences on the choice of a college major in a School or College of Agriculture. The nature of personal influences stemming from relatives, school experiences, important social contacts and goal values were all positive and revealed that as these influences increased so did behavioral commitment to agriculture.

For each of the other two factors a mixture of positive and negative relationships resulted. The only family background variable relating positively to behavioral commitment was father's occupation type. Negative relationships revealed that behavioral commitment declined the more urban the father's childhood residence, the higher the attained level of education, and the higher the family's annual income.

To this point the same characteristics of 1862 and 1890 students have related to differences in behavioral commitment. However, characteristics included in the student attribute factor revealed some differences. Only sex was significant for both student samples. In both instances, this negative relationship for sex indicated that girls had lower behavioral commitment scores than males, which is not surprising given the more limited opportunities usually afforded girls in agriculture.

Students in 1862 schools were differentiated by three additional student attributes all relating to anticipated status attainments.

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[2] The four factors used to indicate personal influences on the choice of a college major were all composite measures. They were operationally defined as follows: 1) Family and relative influences (father, mother, sister, brother and other relatives) were scored 0 for no influence, 1 for some and 2 for much. Scores were summed to provide a possible range of 0-10. 2) Scholastic experiences combined the items of having a related high school course, a related college course and an opportunity for scholarships or financial assistance which were scored 0 to 2 and summed to provide a range of 0-6. 3) Significant—other encouragement for choosing an agriculture major was comprised of four items (family preference, advice of high school teachers or counselor, advice of college teachers or counselor, and friends were in this major) scored from 0 to 2 and summed to provide a range of possible scores from 0-8. and 4) Career track considerations involving five items (prepare for a career, helping others, preference for country life, successful past experiences in agriculture and insures a good income) which were assigned scores of 0-2 and summed to provide a range of scores from 0-10.

Positive relationships were revealed for the desired occupation type (level) and expected starting income on the first job after college. A negative relationship existed for desired residence indicating that the more urban the desired place of residence the lower the behavioral commitment score.

Only two additional student attributes differentiated 1890 students. A positive relationship existed for race and high school GPA. Non-white students attending 1890 universities had higher behavioral commitment than white students; and the higher a student's GPA the higher his or her behavioral commitment score.

Attitudinal Commitment. The number of independent characteristics resulting in highly significant correlations with attitudinal commitment scores was fewer than the number observed for behavioral commitment. Moreover, only three of the 16 characteristics applied to both 1862 and 1890 students. One personal influence variable relating to career considerations and the student attribute of sex were positively related, while the attribute of desired residence was related negatively.

Among 1862 students none of the family background and only one other personal influence characteristic was significant. This latter was a positive relationship for scholastic experience indicating that more school involvement with agriculture was associated with more favorable attitudes.

Several characteristics significantly differentiated attitudinal commitment among 1890 students that did not do so among 1862 students. One was the father's childhood residence. This was a negative relationship indicating that the more urban the place the father was reared the lower the attitudinal commitment of the student. Two additional characteristics reflecting the factor of student attributes were high school GPA and college classification. Both characteristics were related positively. The higher the GPA and the further the student had progressed in college the greater the attitudinal commitment to agriculture.

Regression Analysis

A stagewise procedure was used to assess the amount of variance in the two commitment measures that can be explained by the 16 characteristics selected for inclusion in the model. Results of this analysis are reported in Table 5 for both 1862 and 1890 students.

Behavioral Commitment Models. For this index 38 percent of the variance among 1862 students and 36 percent of that among 1890 students was accounted for by the models. Both R^2 values were highly significant. Inspection of the standardized coefficients revealed that considerable difference existed among the characteristics included in the two models.

Twelve of the 16 characteristics contributed significantly to the 1862 model. Most prominent here was the entry of all four personal influence indicators. In each instance a positive relationship was observed.

Neither of the remaining factors contributed consistently to the 1862 model. Within the family background factor father's childhood residence entered the model negatively and father's occupation positively. Six student attributes entered also. These were race, sex, high school GPA, desired occupation type expected starting income, and desired residence. The relationships were negative for both sex and desired residence.

Viewing the 1890 model, it was found that only half as many characteristics entered the model and in no instance did all characteristics under a single factor do so. However, these six characteristics had all entered the previous model for 1862 students and in the same direction. This model consisted of the father's childhood residence, sex of the student, high school GPA, family and relatives influence, school experiences, and significant-other encouragement.

Attitudinal Commitment Models. Neither the 1862 or 1890 attitudinal commitment models proved statistically significant as less than 8 percent of the variance was explained by the 16 characteristics considered. The three characteristics of sex, desired residence and career track considerations were the only ones to enter the 1862 model with the latter relationship a negative one. Among the two characteristics entering the 1890 model only career track considerations was common to both models. The other characteristic entering was college classification. Among 1890 students those who had progressed further in their college training had more favorable attitudes toward agriculture.

Occupational Choice

Regression analysis indicates that the kind of occupation desired by students contributes only to the 1862 behavioral commitment model and fails to enter either of the attitudinal models. On a purely logical basis, one would have predicted this relationship between occupational choice and commitment to agriculture to be highly sensitive. Why wasn't it?

To try to provide further insight into this question, we classified the desired occupations reported by agriculture students on the basis of whether they pertained to the broad agricultural industry. This provided two groups of students desiring agriculture versus nonagriculture occupations. Among 1862 students 74 percent of those reporting their occupational choices desired occupations classifiable as part of the agriculture industry. This proportion was 76 percent for 1890 students.

Mean behavioral and attitudinal index scores were computed for both the agriculture and nonagriculture groups and the significance of the mean differences tested for each index. The mean behavioral commitment score for 1862 students was 1.27 points higher among students desiring agriculture related occupations than among those desiring nonagriculture occupations. A smaller and statistically insignificant mean difference of only .38 was found among 1890 students.

Attitudinal Commitment scores revealed only small mean differences between students enrolled in both 1862 and 1890 schools desiring agriculture related and nonagriculture occupations. The mean scores of agricultural aspirants were only .62 points higher for 1862 students and .37 points higher for 1890 students. Both differences were significant.

These findings support the idea that behavioral commitment does reflect a stronger sense of career identification with occupations in the broad agriculture industry than with nonagriculture occupations. This was not as noticeable among 1890 students. At the same time attitudinal commitment appears to reflect this tie to career identification consistantly for both 1862 and 1890 student.

Conclusions

Results of our investigation reveal that the majority of students enrolled in Colleges of Agriculture had made little or no behavioral commitments to the occupational field prior to choosing an agriculture major. Some differentiation among students existed for both 1862 and 1890 students. Analysis using zero-order correlation showed that family background, student attributes and personal influence characteristics that distinguish among students with high or low behavioral commitment were generally the same for both groups of students.

Regression analysis revealed that the two somewhat different models derived for 1862 and 1890 students were both highly significant. These models included at least one characteristic from each of the three factors considered. Five characteristics were common to both models. We can conclude that behavioral commitment is most dependent on father's childhood residence, sex and high school GPA of students and the influence of family and school experiences. Where these supports exist for entering an agriculture curricula the student is more likely to have made some public commitment to an agricultural occupation through prior behavioral choices (actions) than where these are lacking.

On the other hand, the attitudinal commitment measure did not provide an effective indicator of commitment to agriculture. Neither the 1862 nor 1890 models accounted for any appreciable amount of the variance in attitudinal commitment scores. Students appeared to be randomly distributed along the index with only a few characteristics differentiating students with high or low scores. Attitudinal commitment to agriculture appears to result from a general value orientation only minimally related to rural and agricultural anticedents. A key indicator being career track considerations.

It would be interesting to know the extent to which students in other college curricula would score similarly on the attitudinal commitment measure. We suspect that their scores might be very similar and that this measure of commitment is reflecting an orientation toward agriculture that may apply generally in U.S. society. If so, this suggests that a more favorable image of the agriculture industry may exist among the young than one might expect. Certainly there is no support for a contention that agriculture students are pessimistic about the future of agriculture and the occupational opportunities in the agriculture industry.

Table 1. Questionnaire items and response categories, 1862 and 1890 student response frequencies and assigned index values for constructing behavioral Commitment to Agriculture Index.

Questionnaire items and response categories	Student Responses 1862 Number	%	1890 Number	%	Index Values
Influence of high school agriculture course on choice of major					
No agriculture course	1956	77.2	541	53.2	0
Agriculture course no influence	373	14.7	235	23.2	1
Agriculture course influential	206	8.1	240	23.6	2
While in high school, did you participate in 4-H as a member or officer (leader)?					
Did not participate	2059	81.2	714	70.3	0
Participated only	246	9.7	166	16.3	1
Participated and officer	230	9.1	136	13.4	2
While in high school, did you participate in FFA as a member or officer (leader)?					
Did not participate	2043	80.6	664	65.4	0
Participated only	186	7.3	171	16.8	1
Participated and officer	306	12.1	181	17.8	2
Have you ever worked either on your home farm or ranch, or someone elses farm or ranch, or had other agriculture-related work experience.					
No agriculture work experience	675	26.6	225	22.1	0
One type of experience	734	29.0	335	33.0	1
Two types of experience	631	24.9	273	26.9	2
Three types of experience	495	19.5	183	18.0	3
Have an extension agent, agricultural education teacher, dean of agriculture or veterinarian been influential in your choice of an agriculture major?					
None of influence	1536	60.7	413	40.6	0
One of influence	711	28.0	359	35.3	1
Two of influence	196	7.7	155	15.3	2
Three of influence	62	2.4	58	5.7	3
Four of influence	30	1.2	31	3.1	4
Total and range	(2535)		(1016)		0-13

Table 2. Questionnaire items and response categories, 1862 and 1890 student response frequencies and assigned index values for constructing Attitudinal Commitment to Agriculture Index.

	Student Responses				
	1862		1890		
Questionnaire items and response categories	Number	%	Number	%	Index Values
There are good career opportunities in agriculture.					
Disagree or no opinion	325	13.0	62	6.2	0
Agree	1164	46.6	329	33.1	1
Stongly agree	1008	40.4	602	60.6	2
Cases	(2497)		(993)		
Most agricultural occupations are unsuited to women					
Agree or no opinion	1079	43.2	365	36.6	0
Disagree	1053	42.1	436	43.8	1
Strongly disagree	368	14.7	195	19.6	2
Cases	(2535)		(996)		
Most work in agriculture can be done by people with little education					
Agree or no opinion	652	26.1	375	37.8	0
Disagree	1356	54.3	417	42.0	1
Strongly disagree	488	19.6	201	20.2	2
Cases	(2496)		(993)		
Agriculture is a declining industry					
Agree or no opinion	373	14.9	207	20.8	0
Disagree	817	32.7	277	27.9	1
Strongly disagree	1307	52.3	509	51.3	2
Cases	(2435)		(993)		
Range					0-8

Table 3. Distribution of 1862 and 1890 agriculture students on the Behavioral Commitment to Agriculture Index and the Attitudinal Commitment to Agriculture Index.

	Student scores			
	1862		1890	
Index	Number	%	Number	%
Behavioral:				
0	480	18.9	110	10.8
1	551	21.7	142	14.0
2	448	17.7	159	15.6
3	304	12.0	108	10.6
4	181	7.1	89	8.8
5	135	5.3	96	9.4
6	120	4.7	74	7.3
7	100	3.9	79	7.8
8	89	3.5	60	5.9
9	42	1.7	46	4.5
10	46	1.8	27	2.7
11	21	0.8	13	1.3
12	14	0.6	10	1.0
13	4	0.2	3	0.3
Cases	(2535)		(1016)	
Attitudinal:				
0	37	1.5	9	0.9
1	103	4.2	45	4.6
2	264	10.6	75	7.7
3	408	16.5	134	13.7
4	541	21.8	233	23.9
5	460	18.5	180	18.5
6	401	16.2	163	16.7
7	195	7.9	91	9.3
8	71	2.9	45	4.6
Cases	(2480)		(975)	

Table 4. Zero-order Correlations between Behavioral and Attitudinal Commitment to Agriculture Index Scores on Selected Factors of Family Background, Student Attributes and Personal Influences on Choice of a College Major.

Selected Characteristics	Indexes of Commitment			
	Behavioral		Attitudinal	
	1862	1890	1862	1890
Family background:				
Father's childhood residence	-.369*	-.316*	-.038	-.116*
Father's occupation	.281*	.236*	-.003	.011
Family's annual income	-.134*	-.224*	-.008	.044
Father's education	-.183*	-.230*	-.008	-.079**
Student attributes:				
Race	.044	.206*	.031	.033
Sex	-.258*	-.253*	.160*	.107*
High School GPA	.046**	.102*	.057**	.132*
College classification	-.028	.029	.024	.137*
College GPA	-.020	.028	.047**	.043
Desired occupation	.134*	-.019	-.029	-.074**
Expected starting income	.066*	.060	-.004	.050
Desired residence	-.264*	-.028	-.102*	-.104*
Personal influences on choice of college major:				
Family and relatives	.257*	.333*	.017	-.042
Scholastic experiences	.285*	.402*	.064*	.004
Significant-other encouragement	.294*	.400*	.000	-.001
Career track considerations	.360*	.321*	.155*	.150*

NOTE: Significant Beta values are designated as follows:

* P < .01
** P < .05

Table 5. Regression of Behavioral and Attitudinal Commitment to Agriculture Index Scores on Selected Factors of Family Background, Student Attributes and Personal Influences on Choice of a College Major.

Selected Characteristics	Indexes of Commitment			
	Behavioral		Attitudinal	
	1862	1890	1862	1890
Family Background:				
Father's childhood residence	-.194*	-.210*	-.033	-.056
Father's occupation	.128*	.075**	-.008	-.001
Family's annual income	-.005	-.020	.005	.062
Father's education	-.020	-.010	.002	-.083
Student Attributes:				
Race	-.063*	-.050	.023	-.042
Sex	-.156*	-.198*	.200*	.061
High School GPA	.066*	.093*	-.015	.094
College classification	-.005	.039	.032	.142*
College GPA	-.023	.067**	.005	.012
Desired occupation	.091*	.037	-.015	-.001
Expected starting income	.054*	.040	.035	.030
Desired residence	-.129*	-.004	-.081*	-.020
Personal Influence on choice of college major:				
Family and relatives	.086*	.127*	-.030	-.032
School experiences	.193*	.235*	.048	-.058
Significant-other encouragement	.103*	.109*	-.043	-.059
Career track considerations	.172*	.065	.153*	.181*
R^2 =	.383	.362	.071	.077
F =	78.918*	26.991*	9.677	3.962

NOTE: Significant Beta values are designated as follows:

* P < .01
** P < .05

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PRODUCTION AGRICULTURE: AN EMERGING OCCUPATIONAL ORIENTATION FOR WOMEN IN COLLEGES OF AGRICULTURE*

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This paper is concerned with the farming plans of women enrolled in America's colleges of agriculture. Until quite recently most research and discussion dealing with agriculture and women in the United States focused on, and was limited to, studies of farm families and the role of the farm wife as mother, housekeeper, and occasionally farm helper.[1] Other than a special issue of Agricultural Education devoted to explaining and exploring carreer possibilities in vocational agriculture for women,[2] and a few brief articles dealing with women in areas such as agricultural engineering[3] and horticulture,[4] very little attention has been paid to professional/managerial agricultural employment opportunities for women.[5] Given the sex-stereotyping of agriculture and farming as "man's work", this is not surprising.

What is surprising, however, is that prior to 1950 women seemed to be more widely recognized and accepted in the American agricultural sector, particularly as farmers and farm managers. Although never comprising a large proportion of the total agricultural work force, a number of case studies with titles such as "A Woman with Twenty Acres",[6] "Women Farmers",[7] and "A Woman Rice Planter",[8] appeared in the late 1800's and early 1900's. Further, the Brookholt School of Agriculture for Women was founded in 1911 in Hempstead, New York with the expressed purpose of training women "...for a permanent occupation which will give them a chance to make more than a mere living and to become more than a lifelong employee of somebody else."[9] The establishment of the U. S. Women's Land Army during both World War I and World War II also brought to light the farming ability of women.[10]

Today America may be at the forefront of a significant movement into farming and other agricultural related careers by women. For example, the transition from full-time to part-time farming (as a permanent occupational adjustment for men) in many parts of the United States often results in the farm wife taking major (full-time) responsibility in managing the family enterprise. These women become, in effect, de-facto full-time farmers.[11] A more direct and deliberate career path into agriculture for women, however, is revealed in their increased enrollments in America's colleges of agriculture. Recent figures from the National Association of State Universities and Land Grant Colleges show steady growth in the proportion of women pursuing agricultural-related degrees. Today women comprise almost one-third of the total agricultural enrollment in America's land grant colleges.[12]

Although many of these college women hope to find reqarding agricultural-related jobs with state and federal government agencies, in educational institutions, or in the agribusiness sector, a significant subset anticipate

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careers in the area of production agriculture either as farmers or farm managers. If this latter group of women succeed in fulfilling their career ambitions, they will enter an occupation that is as sex segregated as any in America. Currently, women account for only 72,000 (about 5 percent) of the 1,429,000 farmers and farm managers in the country. An exploratory examination of the social origins and background characteristics of college women planning to farm is the primary concern of this paper.

We should note that going to college or obtaining other post-secondary training has not been the traditional path into farming for American men or women.[13] In the past, most of the skills necessary to run a successful farming enterprise could be, and were, learned through on-the-farm apprenticeships. In fact, even the Brookholt School of Agriculture for Women, noted above, relied very heavily on practical and applied types of agricultural instruction. Today, however, farming has become a highly competitive, commercialized, and specialized business. Informal, on-the-job training may no longer be sufficient to insure an efficient, productive, and profitable enterprise. As the American farm sector continues to move toward large-scale, capital intensive operations, increasing numbers of aspiring farmers will be forced to pursue post-secondary agricultural training to learn and master the latest managerial skills and technical competencies.[14]

Our effort here is directed toward examining the patterning of occupational goals of women enrolled in college agricultural curriculums. We will be especially concerned with and pay special attention to identifying a set of background variables that describes and helps explain a career orientation toward farming for these women. Specifically, we shall concern ourselves with the relationship of a farm-related career orientation to the following variables: 1) residence background; 2) father's occupation; 3) parent's childhood residence; 4) prior agricultural work experiences; 5) academic area of study; and 6) specific occupational orientation. To better understand and interpret the occupational planning process as it relates to a decision to pursue a career in farming, comparisons will be made between farm planners and women with other (non-farm) related agricultural career ambitions. By identifying and examining factors associated with the entrance into farming among American college women, we hope to better understand not only certain of the dynamics of farm recruitment in modern America, but also the particular role women may play in production agriculture in the future.

Research Procedures

Study Population:

Data for this study are from U. S. Department of Agriculture Southern Regional Research Project S-114 (Defining and Achieving Life Goals: A Process of Human Resource Development). One part of this project subtitled - "A Regional Study of Higher Education in Agriculture and Home Economics in the South" - deals with the determination of background characteristics and career planning strategies of men and women attending southern colleges of agriculture and home economics.[15] Data used for analysis in this paper were collected in the spring of 1977 from agricultural students enrolled in 14 southern land grant institutions.[16] In addition, the college of agriculture at Texas Tech University was included in the sample because of its relatively large agricultural enrollment (N=1542).

The sampling frame was determined by asking the Deans of Agriculture at each school to provide the S-114 researchers with lists of names, addresses and academic ranks of currently enrolled students. These lists were then edited to delete students classified as either special students or graduate students. From these lists a fifteen percent random sample for the colleges of agriculture was drawn.

In all cases, questionnaires were mailed to respondents. Two mail follow-ups and one direct contact were used to improve response rates. The overall response rate was 77.0 percent (N=2535). Women represented 27.3 percent (N=692) of the total study population. In this paper we will examine only the female portion of the data.

Study Variables:

A *career orientation* toward production agriculture was determined from responses to the following two questions: "If you were completely free to choose any job, what would you desire most as a lifetime job?" and "Sometimes we are not always able to do what we want most. What kind of job do you expect to have most of your life? Please give the exact job?" Responses were edited and coded according to a listing of agricultural occupations developed by Hoover.[17] Agricultural occupations not included on the original list were added. Each specific occupation was then assigned a code number without regard to status within the following eight general agricultural areas: 1) Agricultural Production (self-employed); 2) Agricultural Production (paid employee); 3) Agricultural Production (services); 4) Agricultural Supplies and Mechanics; 5) Occupations in Agricultural Products; 6) Ornamental Horticulture, Agricultural Resources, and Forestry; 7) Agricultural Professions; 8) Marginal Agricultural Occupations.

For present purposes, women who either *expect* and/or *aspire* to enter agricultural production (self-employed) or selected agricultural production (paid employee) occupations (e.g., cattleman, dairyman, farm manager, etc.) are coded as "farm oriented". Women who neither expect nor aspire to agricultural production jobs are coded as "non-farm oriented" (see Table 1). Because this paper is viewed as more exploratory than rigidly analytical, we feel it is both appropriate and justified to use a combined expectation/aspiration measure to represent career orientation. We should also note that throughout this paper the terms "production agriculture jobs" and "farm related jobs" will be used interchangeably.

To more clearly specify the career development process, the following variables will be introduced: *respondent's residence background* (farm/non-farm); *father's occupation* (farmer/blue collar worker/white collar worker); *father's* and *mother's childhood residence* (farm/non-farm); *liklihood of inheriting a farm* (definitely expect to inherit a farm/some possibility or no chance of inheriting a farm).

To determine the nature and extent of prior *agricultural work experiences* women were asked whether they had done: 1) farm or ranch work on a home farm; 2) farm or ranch work elsewhere as a hired employee; or 3) other agriculture-related work.

Finally, two additional variables (academic major and specific job orientation) are introduced to further delimit the farm-related career orientations of our study population. *Academic major* was self reported and coded into one of 80 possible areas of concentration. *Specific job orientation* was obtained from the open-ended responses to the occupational aspiration and/or occupational expectation questions noted above.

Findings

Table 2A shows, that women oriented toward farm careers are more likely to live on farms or ranches than in rural/non-farm environs or towns or cities. Over 16 percent of the women from farm residences have production agriculture career orientations compared to only 12 percent of the women from non-farm backgrounds.

Turning to father's occupation (Table 2B), we see that almost one quarter of the young women whose father's principle occupation is farming wish to enter some aspect of production agriculture, whereas only about 13 percent of the women from homes where the father holds a white collar or blue collar job would like a farm-related job. Clearly, then, farm roots in terms of both residence background and parental occupation are associated with a decision to pursue a career in production agriculture among women in our study population. Given the rather stiff entrance requirements to many production agriculture jobs, especially farming, (e.g., acquiring land, accumulating working capital, etc.) it is not especially surprising to find that young women from farm backgrounds are more likely to enter farming than their counterparts from non-farm origins. To assure a chance of success, most beginning farmers will no doubt solicit aid in their occupational quest from their parents.

Along this line, it is interesting to note that both father's childhood residence and mother's childhood residence (Tables 2C and 2D) are significantly correlated with the career orientations of their daughters. Young women whose fathers or mothers were reared on farms are more likely to manifest farm related occupational orientations than women whose parents come from non-farm origins. This finding is similar to results obtained for farm boys in an earlier study[18] and suggests that farming plans are influenced not only by the availability of land and capital, but also (perhaps more subtly) by parental encouragement factors.

Table 2E shows that the likelihood of inheriting a farm or ranch someday is also significantly associated with farming plans. Almost twice as many women (23.6 percent) who "definitely expect" to inherit a farm or ranch someday have farm-related job ambitions as women who have only "some possibility" or "no chance" or inheriting a farm. Given the scarcity of good farm land and the almost unreachable start-up costs in farming today, it is understandable that farming orientations are higher for those lucky enough to be "in-line" to inherit a farm or ranch.

What is interesting, however, is that almost three-fourths of the women who expect to inherit a farm have non-farm related career ambitions. It may be that some of these women will operate their farms on a part-time basis (as a secondary or supplemental source of income), or may allow their farms to lie fallow (the land being used for long run investment or short run speculative purposes). More than likely, perhaps, if these women marry, their husbands will take control of the farming operation, especially if the farm is a profitable, on-going concern. In fact, for this latter group of women, the choice of a marriage partner may be dependent, in part at least, on his farming experience and ability. In any case, given the current problems associated with the intergenerational transfer of family farms, it would be useful and beneficial to know what happens to farms, especially when there is no male heir who can (or wishes) to take over the family enterprise.

Work Experiences:

Table 3 reveals that women oriented toward farming are considerably more likely to have had prior agricultural related work experience than their counterparts with non-production oriented agricultural ambitions. Almost half of the women aiming for farm-related careers reported they had worked on a home farm, and 42 percent reported other farm-related work experience. On the other hand, among women with non-farm related career plans, only 27.2 percent reported working on a home farm and less than 15 percent noted other farm work. Furthermore, women with production agriculture ambitions noted more non-farm related agricultural work experience than their peers with non-farm related career goals. The findings in Table 3 are not surprising. Jobs in the area of production agriculture, especially farming, generally require considerably more practical experience than other (non-production related) agricultural jobs. One does not (and cannot) acquire the requisite skills necessary to become a productive and efficient farmer in school. Consequently, to supplement and compliment their more formal academic training, it appears that many young women have sought and found farm related jobs.

We do not know the extent to which the colleges and universities in our sample require their students to obtain practical agricultural work experience. However, college level "work-study" programs geared toward training tomorrow's farmers would definitely benefit not only the aspiring farmer, but in the long run also assure that the nation's rural-farm sector has a well-trained, technically competent labor force.

Specific Orientations:

To conclude the empirical phase of this paper, we shall briefly examine the subject matter concentrations and specific occupational orientations or our study population. Table 4 reveals that 76 percent of the young women aiming for production agriculture careers are enrolled in only five academic areas (animal science, animal science production, horticulture, agricultural economics, and agronomy). Especially surprising is the large number (50.0 percent) found in animal science curriculums. On the other hand, less than 35 percent of the women with non-farm related career orientations are found in the same five areas. The concentration of farm oriented women in these five academic areas suggests not only the relative attractiveness of careers related to animal science, but also the rather narrow range of academic tracks that lead women toward, and prepare them for, careers in production agriculture.

The findings in Table 5 deal with the specific occupational orientations of our study population and help us to further clarify the farm recruitment process. Three occupations (general farming, farm manager/foreman, and horse breeder) account for over two thirds of the career orientations of our study population. Of the three, horse breeder seems to be the most "content-specific", concrete, and clear-cut choice. On the other hand, women aiming for general farming/farm manager careers appear to be leaving their options open vis-a-vis farming specialty. Further, the fact that less than 40 percent of the young women noted a specific area of expertise in production agriculture (e.g., fruit farmer, vacation farm operator, etc.) may indicate that at present most college women lack the knowledge to make intelligent decisions about farm specialization.

In any case, the findings in Table 5 suggest that the majority of college women with occupational orientations toward production agriculture are still relatively undecided about the particulars of their chosen occupational field. It may be that since half of our study population "aspires" toward farm careers (rather than "expects" to enter farming), they do not have enough knowledge about the exact nature of production agriculture to make specific choices among a wide range of potential farm-related specialties. A second reason for the lack of specificity in orientation may have to do with the heightened competition and quickly changing nature associated with farming today. To avoid making a costly mistake at the beginning of their careers, many young women who wish to farm are delaying the choice of their ultimate career path until the last possible moment.

Certainly guidance counseling, especially in high school, has not emphasized farm related careers for women. We suspect that many more college women would opt for careers in production agriculture if they were supplied with better information about the opportunities in this area.

Summary and Conclusions

Using data from U. S. Department of Agriculture Regional Research Project S-114, this paper was designed to examine and compare the social origins and background characteristics of American college women aiming for farm related careers to women with non-farm related agricultural ambitions. Our findings show that, compared to women with career expectations in fields other than production agriculture, women oriented toward farm related careers are more likely to be living on farms, more likely to come from homes where the father is a full-time farmer, more likely to have parents who were raised on farms, and more likely to have had prior agricultural related work experiences. In terms of current academic major, women aiming for production agriculture jobs were concentrated in five areas of study (agricultural economics, animal science, animal science production, horticulture, and agronomy). Women with non-production agriculture ambitions, on the other hand, displayed a wider and more varied selection of agricultural majors. Finally, we found women with production oriented agricultural occupational goals, seemed to be somewhat uncertain about the specific agricultural production career track they should pursue. Most women in the study expected or aspired toward careers as general farmers or farm managers.

Taken as a whole, this study provides a profile of one newly emerging and potentially important segment of America's future production agriculture work force. As we noted in the introduction, American agriculture may be at the forefront of a significant movement into farming by women. Certainly there is no reason why women cannot and should not become farmers. The part-time farming movement represents one pathway into production agriculture for women. On farms where the husband has a full-time off-farm job, many of the decisions regarding the everyday running of the family enterprise fall to the wife. In fact, we suspect that many of these women are de-facto "full-time" farmers. It is worth noting that the Kentucky Agricultural Experiment Station has developed a program specifically to meet the needs of these women.[19] As the part-time farming movement continues to expand, more programs of a similar vein should be implemented.

Another gateway for women into farming and production agriculture may be America's colleges of agriculture. As this paper showed, almost 15 percent of the young women enrolled in agricultural curriculums in Southern Land Grant Universities expect to enter or aspire toward farm-related careers. Unlike women who (often by default) take over the everyday operation of the family farm when their husbands secure off-farm jobs, the young women in the present study have made rather concrete and deliberate decisions to become farmers. No doubt more college women would pursue production agriculture careers if they were made aware of the opportunities in this area.

The present inquiry has been exploratory. We probed only a limited set of background factors associated with farm recruitment among American college women. However, if we are correct in our supposition that farm related careers are becoming more accessible and attractive to women, then we need to formulate more in-depth research in this area. For example, the processes by which and through which college (and non-college) women become farmers should be better delineated. Furthermore, future studies of this sort would gain added meaning and significance if they were designed to include study populations from other western and non-western societies. We also need to undertake studies that examine what happens to women after they enter farming. We know almost nothing about the types of work, work routines, life styles, and opportunity and reward structures that characterize, and are associated with, full-time farming by women.[20] In short, we believe that it is incumbant upon anyone attempting to describe or analyze the structure of agriculture in a society to examine and take into account the process of farm recruitment for women and the social and economic conditions of women farmers.

FOOTNOTES

1. See for example: Eugene A. Wilkening and Lakshmi K. Bharadwaj, "Aspirations, Work Roles and Decision Making Patterns of Farm Husbands and Wives", University of Wisconsin Agricultural Experiment Station Research Bulletin 266, Madison, Wisconsin (April 1966). Linda Heuser, "Woman's New Place on the Farm", *Proceedings, Annual Convention of the National Peach Council* 32 (1973): 114-119. Wallace E. Huffman, "The Value of Production Time of Farm Wives: Iowa, North Carolina, and Oklahoma", *American Journal of Agricultural Economics* 58 (1976): 836-841.

2. *Agricultural Education* 47 (1975). Especially relevant are the articles by Charles Curry, "Vocational Agricultural Programs - - Emphasis on Female Interests"; Don Knotts and Rose Knotts, "Why So Few?"; and Carl Reynolds, "Should We Encourage Women to Enter Agricultural Education?".

3. E. Paul Taigarides, "Wanted: More Women Engineers in Agricultural Engineering", *Agricultural Engineering* 51 (1970): 53.

4. Maxine M. Thompson, "Women in Horticulture", *Hort Science* 8 (1973): 77-78.

5. Several bibliographies related to women and agriculture are available. The most recent is Darla Fera, "Women in American Agriculture: A Select Bibliography", Library List 103, Economic Research Service and the National Agricultural Library, USDA (November, 1977). Other earlier bibliographies include Charles R. Green, "List of References on Women in Agriculture", *Special Libraries* 10 (1919): 138-145 and Helen C. Bullock, *The Woman on the Farm* (Rochester, New York: Syracuse University, 1917).

6. Marthe A. P. Reymonde, "A Woman With Twenty Acres", *Suburban Life* 9 (1909): 252-257 and 279.

7. Virginia C. Meredith, "Women Farmers", *Breeders Gazette* 67 (1915): 854.

8. Patience Pennington, *A Woman Rice Planter* (New York: MacMillan, 1928).

9. Ida Husted Harper, "The Women's School of Agriculture", *Independent* 70 (June 29, 1911): 1396.

10. See for example: *The Farmerette*, Published by the Comp Standards Committee of the Women's Land Army of America, Volume 1, No. 1 (December 19, 1918): New York. United States Department of Agriculture, Extnesion Service, "Women Farm Workers, the 1943 Story of the Women's Land Army of the U. S. Crop Corps", (Washington, D. C.: U. S. Government Printing Office, 1943). United States Department of Agriculture, Extension Service, "Women's Land Army, Extension Farm Labor Program, 1943-1944-1945," (Washington, D. C.: U. S. Government Printing Office, 1945).

11. Unfortunately, we know very little about the farm work routines, life styles, and reward structures for these women. A research study presently underway in Michigan and one planned in South Carolina should help answer these questions. Some speculation on the scope of this phenomenon is offered in Brenda Oldfield and Jack Wise, "The Ms. Farmers: An Adult Class for Farm Women", *Agricultural Education* 46 (1974): 226-227.

12. Norma Hensley, "Agricultural Enrollment in the National Association of State Universities and Land Grant Colleges Member Institutions", A Report to the Resident Instruction Section, Division of Agriculture (Washington, D. C., April 1976).

13. U. S. Census figures (1970) show that less than four percent of the farmers and farm managers have four or more years of college, and only 11 percent have any college education.

14. An in-depth examination of the relationship between higher education and farming plans can be found in Thomas A. Lyson, "Going to College: A New Rung on the Agricultural Ladder", Unpublished paper, Department of Agricultural Economics and Rural Sociology, Clemson University, Clemson, South Carolina 29631.

15. For our purposes we will deal only with the agricultural portion of the data.

16. The southern states included in the sample are: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Texas, Tennessee, and Virginia.

17. Norman K. Hoover, *Handbook of Agricultural Occupations* (2nd Edition), (Danville, Illinois: The Interstate Printers and Publishers, Inc., 1969).

18. T. A. Lyson.

19. Brenda Oldfield and Jack Wise.

20 A comparison of U. S. income figures between men and women farmers in 1970 suggests the existence of dramatically different opportunity and reward structures. The mean income of women foarmers in 1970 was $2,277 compared to a mean income for men of $4,822. Source: *Statistical Abstract, 1976*.

Table 1. Agricultural career expectations by agricultural career aspirations.

		Occupational Aspiration	
		Farm oriented	Non-farm oriented
Occupational Expectation	Farm oriented	(N=23) 3.3%	(N=23) 3.3%
	Non-farm oriented	(N=46) 6.6%	(N=600) 86.8%

Table 3. A comparison of prior agricultural work experiences between women with farm related career orientation and women with non-farm related career orientations.

	Career Orientation		
Type of agricultural work experience	Farm oriented % (N)	Non-farm oriented % (N)	Yule's Q
A) Farm or ranch work on home farm[1]	48.8 (84)	27.2 (558)	.436
B) Farm or ranch work elsewhere as a hired employee	42.2 (83)	14.9 (552)	.614
C) Other agriculture related work	48.7 (78)	38.1 (551)	.213

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[1] In some cases a "home farm" may refer to a previous residence, or to a farm owned or operated by a member of the respondent's extended family.

Table 2. Agricultural career orientations of the study population by selected background factors.

	Career orientation		
	Farm oriented		Non-farm oriented
A) Current residence			
Farm (N=190)	16.3%		83.7%
Non-farm (N=500)	12.2		87.8
Yules' Q		.168	
B) Father's occupation			
White collar worker (N=508)	12.4		87.6
Blue collar worker (N=115)	13.0		87.0
Farmer (N=47)	23.4		76.6
Gamma		-.164	
C) Father's childhood residence			
Farm (N=138)	18.8		81.2
Non-farm (N=554)	11.9		88.1
Yule's Q		.264	
D) Mother's childhood residence			
Farm (N=124)	18.5		81.5
Non-farm (N=568)	12.1		87.9
Yule's Q		.244	
E) Likelihood of inheriting a farm someday			
Definitely yes (N=72)	23.6		76.4
Some possibility/ no chance (N=605)	12.4		87.6
Yule's Q		.371	

Table 4. A comparison of academic majors between women with farm related career orientations and women with non-farm related career orientations.

	Career Orientation	
Academic Major	Farm oriented	Non-farm oriented
Animal Science	43.5%	12.9%
Horticulture	14.1	13.9
Agriculture Economics	6.5	2.5
Animal Science Production	6.5	4.0
Agronomy	5.4	4.0
All Others	24.0	65.9
Total %	100.0	100.0
(N)	(92)	(595)

Table 5. Specific career orientations of young women oriented toward careers in farming.

Specific Career Orientation	(N)	Percent
General farmer or rancher	(35)	38.0
Horse breeder	(18)	19.5
Farm manager/farm foremen	(15)	16.3
Cattleman or cattle farmer	(4)	4.2
Truck Farmer	(3)	3.3
Livestock farmer	(3)	3.3
Dairyman	(2)	2.2
Sheep farmer	(2)	2.2
Tree farmer	(2)	2.2
Crop specialty farmer	(1)	1.1
Fruit farmer	(1)	1.1
Game farmer	(1)	1.1
Orchadist	(1)	1.1
Poultry farmer	(1)	1.1
Seed, turf, ornamental farmer	(1)	1.1
Swine farmer	(1)	1.1
Vacation farm operator	(1)	1.1
Total	(92)	100.0

BACKGROUND CHARACTERISTICS AND GOALS OF AGRICULTURE STUDENTS: 1890-1862 COMPARISONS*

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Given that Land Grant colleges have traditionally emphasized the practical side of education, agriculture curriculums forge an even closer link between educational means and occupational ends than many other courses of study (Potts, 1977). A social trend emphasizing the usefulness and relevance of a college degree has been reflected in rising enrollments at 1862 and 1890 Land Grant schools in general and in Colleges of Agriculture in particular (Metcalfe, 1977). Although these changes have been noted for several years, little systematic attention has been given to the shifting composition and aspirations of agriculture student bodies.

The increased interest in agricultural programs in a nationwide phenomenon. Undergraduate agricultural college enrollments in the United States increased by 199 percent during the time period from 1961 to 1976 (Metcalfe, 1977). Since 1976 agriculture enrollments have increased by almost one-third. At Penn State alone, undergraduate enrollment figures show a 44 percent increase in agriculture enrollments and a 300 percent enrollment increase in agriculture business and agriculture economics programs, between the years 1973 and 1976 (Holt, 1977). The growing numbers of undergraduate women in agriculture accounted for 54 percent of the overall national enrollment growth in agriculture from 1973 to 1977. During the period 1973 to 1975, women agricultural students increased from 19 percent to 28 percent, while men agricultural students only increased by 8 percent (Metcalfe, 1977). The percent of non-white minority students majoring in agriculture at Land Grant institutions has also been increasing in recent years (Johnson, 1977). These significant changes have been noted in agriculture student enrollment patterns on the national level, but relatively little attention has been directed towards shifting agriculture enrollment patterns in the South.

The purpose of this paper is to review some of the forces underlying shifts in demand and interest in agricultural occupations and to profile agriculture student populations at the two sets of Land Grant schools in the Southern region. First, we will review some of the factors redirecting student interest in agriculture. Second, we will note some of the historical and development differences in emphasis that characterize 1890 and 1862 Land Grant colleges. Thirdly, the paper examines selected characteristics, experiences, and aspirations of agriculture students based on a large-scale survey conducted at institutions in the Southern region. Particular attention is given to 1890 and 1862 student body differences and similarities and the role education will play in the future of Southern agriculture.

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The New Growth in Agriculture Enrollments

Two interrelated phenomenon underlie the growth of agriculture enrollments in Land Grant schools: an increased agriculture consciousness and a fundamental change in the structure of United States Agriculture. Agriculture, at least in the eyes of some students, is a field of definite opportunity. Students became aware of the important role that agriculture plays in the national economy when the "psychology of surplus" was replaced with the "psychology of shortage" (Holt, 1977) which underscored the importance of food production and distribution. Emphasis shifted from a burden of agricultural surplus in the 60's to basic human survival in the face of a growing world population during the 70's.

Since the beginning of the decade an increasing number of students have recognized the need for advanced training in agriculture occupations. Students also realize that farming is not the only occupation open to people with a degree in agriculture. Now they are aware of expanding opportunities in agribusiness, food production and distribution, agrifinance, farm management, and government agricultural agencies. Expanding employment opportunities and the improved image of agriculture, based on its importance in the world economy, are primary forces behind the new student attitudes toward agricultural education.

A second reason for the recent enrollment growth in agricultural training can be traced to changes in the structure of U.S. agriculture (Congressional Budget Office, 1978). Decreases in the number of farms and farm employees have been coupled with dramatic increases in the size of individual farms, the value of farm products, and the cost of farm production. At the same time, the number of farm acres has remained nearly constant, meaning that fewer farmers are producing more food. Particularly in the South, small black-owned farms have been severely affected by shifting economies of scale in production agriculture (Marshall and Thompson, 1977). Traditional farming skills and a willingness to work are now rivaled by managerial expertise and access to capital as keys to successful farm operation. Many institutional and social restraints limit the access of small farm operators to the latter resources.

An increase in specialization and differentiation of occupations is reflected by a demand for persons with technical skills and advanced managerial training (Wessels, 1977:117-118). Jobs have proliferated in off-farm industries that supply and service the farmer, while independent farmers themselves have diminished in number. Vertical integration and corporate "farmhand" agriculture (Breimyer, 1977), have eliminated the family farm as a viable alternative for many individuals (Fuller and Mason, 1977). Capital demands of modern agriculture often discourage the entry of individuals into farming, and their interests and aspirations frequently are deflected into farm-related occupations in the broad area of agriculture. These occupations usually resemble those of the larger society; that is, white collar jobs, representing a narrow, or indirect association with the production enterprise. Farming and agriculture in general are viewed less as a way of life than as growing sources of jobs and occupational advancement.

Changes in the occupational structure of American agriculture also are reflected in the curricula of the Colleges of Agriculture. At most schools in the early 1950's the number of options available to agriculture students were limited to approximately a half dozen. Today, many schools offer three or four times that number (Poffenberger, 1977). Training in vocational agriculture and extension methods reflect increasing efforts to reach farmers at all scales of operation and levels of education. In this way, Land Grant colleges have differentiated and specialized in response to the changing structure of American agriculture.

As the spectrum of agricultural occupations broadened, so did the range of people seeking agricultural careers. Traditionally an agriculture student has been the son of a farmer, therefore he generally possessed practical experience as a farmer. Increasingly, agriculture students have urban backgrounds, are female, and are minority group members at 1862 and 1890 schools. With more women and city dwellers entering the field of agriculture a realization has come that these students are not farm oriented. In addition many foreign nationals are enrolling in agriculture curriculums. Foreign-born individuals generally do not share the values, rural backgrounds, and farm experiences of the stereotypical agriculture student at a Land Grant institution. In order to aid the student with only academic exposure to agriculture, many schools provide experiential education in the form of practicums. A study at Colorado State University in 1976 shows that 87 percent of agricultural baccalaureate degree students found employment in the same general career area as their internship. In a related study 30 out of 41 potential employers ranked "related experience" either first or second in importance among factors used in consideration of applicants (Thomas, 1977:1-7).

While minorities may have broader choices in today's job market, the growing number of women in agriculture may find it difficult to find employment in a conservative agribusiness (Gallese, 1978). Also the tendency of minorities and women to concentrate in basic ag science and/or horticulture may effectively curtail their occupational opportunities (Johnson, 1977). As a result, these individuals may not be in the position to take advantage of new opportunities associated with the increasingly specialized needs of agriculture industry.

1862 and 1890 Land Grant Schools

The terms 1862 and 1890 institutions refer to different legislative acts that gave birth to the system of Land Grant colleges. An educational caste system existed in the United States prior to 1862. The opportunity to obtain a college education was restricted to a select few who could afford to go to college. Belief in the idea of a college accessible to the working and industrial classes led to the passage of the First Morrill Act (1862). First Morrill Act Colleges were established to provide instruction in agriculture and the mechanic arts as well as classical studies (Swenson, 1977).

The Second Morrill Act (1890) provided additional funds for 1862 colleges as well as initial funds for 1890 colleges. These funds pertained to education and not research. Most of the new 1890 colleges existed before the act, and were designated Land Grant colleges following its passage. They were located in each of seventeen Southern and border states in areas where blacks lived. As such, none of the 1890 colleges are in Appalachia or in the Ozarks. Their origins were quite diverse, although most originated as normal schools, or schools for the education of teachers (Seals, 1977).

From nearly the beginning, the states did not continue 1890 funding for education in the agricultural and mechanical arts in proportion to the federal funds. Thus, virtually from the outset separate but unequal standards prevailed. Today, 1862 schools are the larger, predominantly white institutions in each state. The smaller, predominantly black agriculture schools comprise the 1890 institutions. It was not until the 1970's that efforts to reduce inequities began to progress.

Agricultural teaching programs at 1890 schools have suffered from years of underfunding. The schools rarely had strong support at the state level since most organized groups of agricultural clientele were usually supporters of the 1862 schools. This is still true today and state level funding problems continue (Seales, 1977). However, federal support for 1890 institutions has increased significantly since 1967. Extension funds have been enlarged and, more recently, Hatch Act funds for research have been directed to 1890 institutions in larger amounts.

Enrollments in colleges of agriculture at 1890 schools continue to grow, as they do at the 1862 schools. However, agriculture majors account for nearly one-half of the more than 1,700 students enrolled at the 1890 schools, a much larger proportion of the student population than at the 1862 schools. Agriculture programs at 1862 schools may be larger in absolute numbers and more well-endowed, but 1890 schools have a far greater proportion of their manpower and enrollment committed to agriculture education.

The present report presents data on students enrolled in agriculture curriculums at 1862 and 1890 institutions in such a way that similarities and differences of the two student bodies readily can be assessed. It is not the intent of researchers to explore invidious distinctions between schools, but to foster a healthy environment of mutual knowledge and facilitation that will advance the cause of agricultural education throughout the South.

Managers and designers of agricultural curricula, as well as advisors of individuals making educational and career choices, may both find that knowledge of the backgrounds, experiences, and attitudes of contemporary agriculture students may facilitate their administrative and counseling effectiveness. Comparative knowledge of the 1890 and 1862 agriculture student bodies may pave the way for mutual awareness and interinstitutional cooperation. The origins of today's agriculture students may differ strikingly from traditional conceptions, and important differences besides race may characterize students at 1862 and 1890 schools. Their aspirations may reveal emerging themes and trends in agricultural education.

METHODS

Sample

Enrollment lists for the Spring 1977 term were obtained for all 1862 and 1890 institutions in the Southern region. These student enrollment lists served as the sampling frame for the study. Texas Tech University and Tuskegee Institute were also included. Although neither are formal Land Grant institutions, each has a large agriculture enrollment and makes a significant contribution to agricultural education in the South.

At 1862 institutions a 15 percent sample, stratified by school, was drawn. It was determined that a complete enumeration would be attempted at the 1890 institutions. Given the relative small student population at some 1890 schools, this was the only strategy that would provide sufficient cases for within school analyses and assure the representativeness of the study.

The Questionnaire

A questionnaire was developed on the basis of researcher interest and the recognized needs of those involved in agricultural education administration and student counseling. A broad effort to canvass the literature yielded a minimum of references and information; moreover, it underscored the general lack of systematic research on higher education in agriculture.

The questionnaire formulated by the regional research committee included six major lines of inquiry. These were: personal and family backgrounds, high school experience, college experiences, goals and aspirations, and attitudes towards various issues and topics related to occupational roles in agriculture.

Data Collection

In the spring of 1977, respondents were mailed questionnaires with a cover letter explaining the survey. Follow-up efforts included mailing an additional questionnaire and letters requesting participation, and finally delivery of a reminder postcard to those that had not yet returned the questionnaire. Some variation in the timing of the mailings was unavoidable primarily due to different school term schedules, but this variation is not considered to have affected the quality of the data. Return rates, adjusted for enrollment list errors, were 60 percent at 1890 institutions and 74 percent at 1862 institutions.

Findings

The 1862 schools have a greater percentage of women enrolled in their colleges of agriculture than do 1890 schools as shown in Table 1. Over 27 percent of the 1862 agriculture students are women as compared to 18.8 percent women agriculture students at 1890 institutions. In regard to minority student populations, the 1890 institutions are more integrated than the 1862 schools. Looking at the 1862 institutions, it can be seen that only 0.8 percent of the agriculture students are black. The 1890 schools have 17.1 percent white students among their minority students in agriculture.

Table 3 shows that although the percentages of students growing up on a farm or ranch and in a city are about the same for 1862 and 1890 schools, the 1862 students tend to be more urban and the 1890 students tend to be more rural. According to Table 4, the majority of the parents of both 1890 and 1862 agricultural students (62.8%) do not live on farms.

Educational levels of fathers and mother of the students at Land Grant institutions are shown in Table 5. The greatest level of disparity exists between the fathers of the 1862 students and the fathers of the 1890 students. At 25.9 percent, college graduate was the most frequently reported educational level attained by fathers of 1862 agriculture students, compared to 8.2 percent of the 1890 fathers in this category. In direct contrast to the well-educated 1862 fathers, are the fathers of 1890 agricultural students, who most frequently (30.4%) fell into the less than 9th grade educational category. High school graduate was the most frequently reported educational level for both 1862 mothers and 1890 mothers with 33.2 percent and 24.4 percent respectively. Even so, there is a significant difference between the educational levels of the two sets of mothers. The 1862 mothers tend to be more educated than the 1890 mothers, who in turn tend to more educated than the 1890 fathers. Overall the parents of 1862 agriculture students are better educated than parents of 1890 agriculture students.

Table 6 shows that the income levels of the parents of students at 1862 and 1890 schools are very disparate. Parents of 1890 students are at the bottom of the income category with 55.5 percent averaging from under $5,000 to $9,999 per year. On the other side of the income category are the parents of 1862 students. Almost 48 percent of them range from $20,000 to $49,000 annually in income.

Non-farm managers and administrators were the most frequently reported occupations on Table 7 for the fathers of 1862 agriculture students (16%). Farmer, which was the occupation of 19 percent of the fathers of 1890 students, was also the occupation of 14 percent of the 1862 students' fathers. All other occupations which listed individually had less than 3 percent of the fathers engaged in them are clustered in Table 7 under other occupations. Sixty-three percent of 1862 fathers and 66 percent of the 1890 fathers fall into this blanket category.

Parents, personal savings, and money saved from summer jobs were the major sources of college funds, shown in Table 8, for all the agriculture students. Major differences can be discerned when 1890 students are compared to 1862 students. While money from parents (84.5%), summer jobs (78.3%), and personal savings (75.5%) were the most important sources of college funds for the 1862 students, 1890 students listed different sources of their funds for college. Summer jobs (66.1%) were the most important source of money for college among 1890 agricultural students. Parents

(65.8%) were the second most important contributors of funds for their children's education. A radical difference between 1890 and 1862 agriculture students is that 65.3 percent of 1890 students rely on loans and grants to pay their way through college while 24.8 percent of 1862 students receive funding from this source.

As Table 9 shows, most of the agriculture students at both 1862 and 1890 institutions have had work experiences in an agricultural setting. Forty-seven percent of the 1862 students and 55.8 percent of the 1890 students have worked as a home farm employee. Other farm employees include 47.2 percent of 1862 agriculture students and 46.6 percent of the 1890 students. Over 58 percent and 66 percent of the 1862 and 1890 agricultural students respectively have been engaged in other agricultural work.

The most frequently chosen first and second majors at both sets of Land Grant institutions are the subjects of Table 10. Agriculture education and animal science are the most frequently desired first major at 1890 schools, both with 18 percent of the students choosing them. At 1862 schools, 13 percent of the agriculture students chose animal science as their first major. The most frequently chosen second major at both 1890 and 1862 schools was an aggregate category generally called a non-agricultural occupation.

Table 11 shows the responses of 1862 and 1890 agricultural students to three attitudinal items from the questionnaire. When asked their attitudes towards education as related to agricultural work, 73.9 percent of the 1862 students and 62.2 percent of the 1890 students felt that education is a prerequisite for a career in agriculture. Therefore, as shown in Table 12, 97.1 percent of the 1862 agricultural students and 97.5 percent of the 1890 students expect to earn a college degree. Comparison of the desired and expected educational levels of the two agricultural student bodies finds that the 1862 students are geared towards obtaining a bachelor's degree while 1890 students are more oriented towards earning a graduate level degree. Realistically, the majority (57.1%) of 1862 students expect to complete their education with a bachelor's degree and only 5 percent expect to actually get a doctoral degree. While 29.9 percent of 1890 students want to earn a master's degree, 36.9 percent expect to get one. A greater percentage of 1890 students actually plan to obtain a doctoral degree (16.8%).

Fifty-two percent of all the agricultural students sampled strongly disagreed that agriculture is a declining industry. Likewise, 40.4 percent of the 1862 agricultural students and 60.6 percent of the 1890 agricultural students strongly agree that there are good career opportunities in agriculture. Following these positive attitudes towards agriculture as an occupation, only 26 percent of both 1862 and 1890 students, as shown in Table 13, expect to work on non-agricultural jobs.

Table 13 shows the most frequently desired and expected jobs in agriculture as chosen by Land Grant college agricultural students. Of these 1862 students who have chosen to work in an agricultural setting, 17 percent want to be veterinarians, but only 9 percent expect to reach their goal. The 1890 students follow the same pattern, with 18 percent desiring to be veterinarians, but 13 percent actually expecting to gain the object of their desire. General farming or ranching was the second most frequently mentioned occupation desired and expected by both sets of students.

CONCLUSION

A poll of college of agriculture administrators across the United States yielded the following national trends concerning students enrolled in an agriculture curriculum: undergraduates tend to have lesser rural residential backgrounds, and more urban backgrounds. They are more heterogeneous in backgrounds and abilities. Their ranks include increasing numbers of women and minorities. The findings among the agricultural students at Land Grant schools in the Southern region supports these national trends. Agriculture students at 1862 schools tend to come more from urban areas than from rural ones. The majority of the 1890 and 1862 students' parents were not currently residing on a farm or ranch at the time of the study. Dissimilar family backgrounds do exist between the two sets of agriculture students.

With 27.3 percent female enrollment in agriculture, the 1862 schools in the Southern region are almost equal to the national average of 28 percent female agriculture students. Racial composition of the two student bodies is also a major point of comparison. The 1890 schools have 17.1 percent minority (white) students as compared to 0.8 percent black students enrolled in 1862 schools. New research and extension programs at 1890 schools have influenced the enrollment of whites. Apparently an increasing number of white students are feeling psychologically and socially secure as minorities. This ability to cope with a racial situation has led many whites to seriously examine advantages that 1890 schools hold for them. Proximity, low costs, marketability of degrees, as well as expanding programs, are favorable factors for the 1890 schools that are assets for both white and black students.

College of Agriculture administrators have pointed out that many agriculture students reared in urban environments have only academic exposure to agriculture. Over 58 percent of the 1862 students and 66 percent of the 1890 students in the regional study have had work experience in an agricultural related field. But for the 34 to 42 percent of the agricultural students that may be less familiar with the vocabularly of agriculture, and those who lack skills in applied areas, many Land Grant schools are liberalizing their programs, giving more consideration to urbanites and women and by broadening their curricular offerings by adding new majors and establishing formalized internships to provide practical experience to students. Apparently such practical programs are extremely important because most potential employers of agricultural students indicate that they want employees with both technical training and practical farm experience. Experience has shown that an overwhelming majority of agriculture students who participate in an internship program find employment in the same general career area as their internship.

Finding a job is one of the most pressing matters that will face the agriculture students after graduation. At the present time, there is a great demand for people with degrees in traditional production-oriented areas of agriculture, food science, and related sciences. While minorities have a broad set of choices in the job market, the tendency of minorities and women to concentrate in certain fields of study may effectively curtail their occupational opportunities. The majority of the agricultural students at the predominantly black 1890 institutions in this regional study chose agricultural education and animal science as their first major. The 1862 students also tend to favor animal science over all others available, but not agriculture education.

Horticulture and animal science majors account for a high percentage of women in agriculture colleges. These findings have serious implications for the counseling and direction that students are receiving at Land Grant colleges. Stronger career and placement counseling should take place early in the agricultural student's academic career. In this way, students can be made aware of career opportunities and thus be steered away from over-crowded, inopportune, and inappropriate majors.

TABLE 1

MALE AND FEMALE AGRICULTURE STUDENTS AT 1890 AND 1862 SCHOOLS

Category Label	1862	1890
Male	72.7%	81.2%
Female	27.3	18.8
	N=2535	N=1016

$X^2 = 27.71$
$p < .0001$
missing=2

TABLE 2

RACE OF AGRICULTURE STUDENTS AT 1890 AND 1862 SCHOOLS

Category Label	1862	1890
American Indian	0.2%	0.5%
Black	0.8	73.0
Mexican-American	0.9	0.0
Puerto Rican	0.1	0.4
Other Latin-American	0.9	0.8
Oriental	0.5	0.2
White	94.9	17.1
Other	1.7	7.9
	N=2535	N=1016

$X^2 = 2437.4$
$p < .0001$
missing=34

TABLE 3

SIZE OF HOMETOWN OF AGRICULTURE STUDENTS AT 1890 AND 1862 SCHOOLS

Category Label	1862 students	1890 students
Farm or ranch	19.8	19.5
Country outside of city	8.4	14.6
Town or village	13.8	18.1
Small city	21.0	17.7
Medium city	23.0	15.9
Metro city	14.1	14.3
	N=2535	N=1016

$X^2 = 57.4$
$p < .0001$
missing=19

TABLE 4

ARE THE PARENTS OF 1890 AND 1862 AGRICULTURE STUDENTS PRESENTLY LIVING ON A FARM?

Category Level	1862 students	1890 students
Yes, own one	23.0	22.5
Yes, lease or rent	1.2	2.3
Yes, tenant-farm	0.4	1.7
No, but own or rent one	14.1	7.3
No	61.4	66.3
	N=2535	N=1016

$X^2 = 51.2$
$p < .0001$
missing=27

TABLE 5

FATHER'S AND MOTHER'S LEVEL OF EDUCATION FOR AGRICULTURE STUDENTS AT 1862 AND 1890 INSTITUTIONS

Category Label	1862		1890	
	Father	Mother	Father	Mother
Less than 9th grade	6.2%	3.4%	30.4%	19.9%
Didn't graduate high school	4.9	4.4	15.5	21.1
Vocational training/didn't graduate high school	1.1	0.4	3.4	23.0
Graduated high school	11.4	33.2	17.7	24.4
Vocational training after high school	4.5	9.3	5.6	5.1
Some college/didn't graduate	17.3	19.5	7.8	6.9
College graduate	25.9	21.4	8.2	8.7
Graduate work	18.0	7.5	8.2	8.3
Don't know	0.8	0.8	3.5	2.3
	N=2535		N=1016	

TABLE 6

PARENTS' YEARLY INCOME — AGRICULTURE STUDENTS AT 1890 AND 1862 INSTITUTIONS

Category Label	1862 students	1890 students
Less than $5,000	2.8%	26.7%
5,000 to 9,999	7.2	28.8
10,000 to 14,999	16.4	16.9
15,000 to 19,999	16.4	10.0
20,000 to 24,999	20.7	7.4
25,000 to 49,999	27.1	6.9
50,000 to 74,999	6.0	1.9
75,000 to 99,999	1.7	0.8
Over 100,000	1.7	0.7
	N=2535	N=1016

$\chi^2 = 838.6$
$p < .0001$
missing=436

TABLE 7

FREQUENTLY REPORTED OCCUPATIONS OF FATHERS OF AGRICULTURAL STUDENTS AT 1890 AND 1862 INSTITUTIONS

Category Label	1862 students	1890 students
Non-farm managers and administrators	16%	5%
Farm foreman	3	1
Non-farm, non-specified laborers	1	6
Farmers (owners & tenants)	14	19
Occupation not reported	3	13
Other occupations	63	66
	N=2535	N=1016

TABLE 8

SOURCES OF COLLEGE FUNDS — 1890 AND 1862 AGRICULTURE STUDENTS (PERCENT RECEIVING EACH SOURCE)

Category Label	1862 students	1890 students	χ^2
Scholarships	26.7%	38.7%	42.1*
Student loans/grants	24.8	65.3	451.2*
Own savings	75.5	63.1	46.9*
Part-time work	54.7	58.4	3.4
Parents	84.5	65.8	136.1*
Veterans benefits	8.0	12.9	15.9*
Spouse	10.6	12.7	2.4
Other relative/friends	9.9	18.9	43.6*
Summer jobs	78.3	66.1	48.9*

* $p < .0001$.

TABLE 9

WORK EXPERIENCES OF 1862 AND 1890 AGRICULTURE STUDENTS

Category Label	1862 students	1890 students	χ^2
Home farm employee	47.0%	55.8%	19.1*
Other farm employee	47.2	46.6	0.05
Other agricultural work	58.2	66.2	15.9*
Home economics employee	5.1	10.0	20.4*

* $p < .0001$.

TABLE 10

FIRST AND SECOND MAJORS IN AGRICULTURE AT 1890 AND 1862 INSTITUTIONS

	1862		1890	
	1st major	2nd major	1st major	2nd major
	Percent			
Agriculture, General	3	2	9	2
Agriculture, Business	1	3	4	7
Agriculture, Economics	8	3	8	2
Agriculture, Education	3	2	18	2
Agronomy	7	3	7	6
Crop Science	0	1	6	6
Animal Science	13	6	18	12
Dairy Science	1	3	0	0
Forestry	5	2	2	0
Horticulture	8	5	2	6
Poultry Science	1	1	—	3
Pre-veterinary Medicine	5	6	5	3
Wildlife & Fisheries	4	2	0	—
Animal Science (Pre-vet)	3	3	3	4
Biology-Microbiology	2	3	1	7
Landscape Architecture/Design	2	5	1	—
Ornamental Horticulture	3	4	1	—
Zoology	3	3	—	—
Community & Rural Development	0	—	3	—
Natural Resources/Conservation	0	1	2	5
Non-Agriculture or Home Economics	3	22	3	20
	N=2512	N=585	N=1008	N=217

TABLE 11

RESPONSES OF 1862 AND 1890 STUDENTS TO SELECTED STATEMENTS ABOUT AGRICULTURE

Statement	1862 schools	1890 schools	X^2
	Percent		
There are good career opportunities in agriculture.			
Strongly disagree	0.6	0.7	
Disagree	3.6	1.3	
Undecided	8.9	4.2	
Agree	46.6	33.1	
Strongly agree	40.4	60.6	125.5*
Most work in agriculture can be done by people with little education.			
Strongly disagree	19.6	20.2	
Disagree	54.3	42.0	
Undecided	13.2	15.4	
Agree	11.7	16.8	
Strongly agree	1.2	5.5	91.5*
Agriculture is a declining industry.			
Strongly disagree	52.3	51.3	
Disagree	32.7	27.9	
Undecided	7.0	6.4	
Agree	5.0	8.2	
Strongly agree	3.0	6.2	36.8*

* $p < .0001$.

TABLE 12

DESIRED AND EXPECTED EDUCATIONAL LEVELS OF AGRICULTURAL STUDENTS AT 1890 AND 1862 INSTITUTIONS

Category Label	1862		1890	
	desired	expected	desired	expected
	Percent			
Quit before bachelor	1.3	2.1	0.5	1.4
Vocational/business school	1.2	0.9	1.5	1.3
Bachelor's degree	31.7	57.1	15.0	29.4
Master's degree	27.2	21.7	29.9	36.9
Professional degree	21.2	13.3	18.4	14.4
Doctoral degree	17.4	5.0	34.7	16.8
	N=2448	N=2443	N=956	N=954

TABLE 13

FREQUENTLY DESIRED AND EXPECTED JOBS IN AGRICULTURE AT 1890 AND 1862 INSTITUTIONS

Category Label	1862 Students		1890 Students	
	desired	expected	desired	expected
	Percent			
Non-agriculture job	20	26	20	24
General farmer/rancher	12	10	7	7
County agent	1	1	3	3
Veterinarian	17	9	18	13
Vocational agriculture teacher	1	2	2	4
Greenhouse/nursery owner or manager	5	4	2	1
Agricultural researcher	1	1	4	3
Extension specialist	1	2	3	4
Agricultural educator	1	1	5	4
Wildlife specialist	3	1	1	0
Soil/water conservationist/ engineer	1	1	4	5
Forester	2	3	1	1
	N=2261	N=1987	N=859	N=718

Session 10

Rural and Urban Culture

"Determinants of Subjective Well-Being of the Aged: Rural-Urban Differences". Virginia S. Smith and Joseph J. Molnar, Auburn University.

"Urban-Rural Differences in Citizens' Perception of Crime Control: An Exploration into Law Enforcement Organization". Deborah S. Anderson, Roberto Hugh Potter, and W. Clinton Terry, University of Florida.

DETERMINANTS OF SUBJECTIVE WELL-BEING OF THE AGED: RURAL-URBAN DIFFERENCES

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The social visibility of the aged has grown rapidly in recent decades as their numbers grow and the magnitude of their health and welfare increasingly becomes evident. The projected population explosion of the elderly has generated a strong research interest over the past three decades in all aspects of aging (Riley et al., 1968; Botwinick, 1973). One approach to the social-psychological dynamics of aging is the study of factors which may contribute to a sense of well-being among those facing the problems of advancing years (Neugarten et al., 1961; Maddox, 1968; Havighurst et al., 1968).

Among the many conditions affecting adaptation to aging, residential context has been cited as one factor related to well-being (Youmans, 1977; Lawton, 1977; Carp, 1976). It has been shown that the rural aged, compared with urban people, have substantially smaller incomes, are restricted in mobility because of inadequate transportation facilities, report poorer health and housing, and reflect a more negative outlook on life (Youmans, 1977; Carp, 1976). While urban residents are exposed to the problems of crime and urban decay, they may benefit by the concentration of agencies and institutions found in the city and the relative accessibility of these resources, complemented by the lifelong familiarity of most older city dwellers with their complex environment. While social gerontological research has expanded rapidly, there has been a limited number of comparative studies of the aged in rural, small-town, and suburban environments, concentrating on urban residents instead (Riley et al., 1968).

This paper reviews the concept of well-being among the aged, identifies factors previously found to influence well-being, and relates well-being to rural-urban residential context. Different social environments may offer differential prospects for the adaptation and well-being of the aged. We examine empirical results from a national sample of aged persons, analyzing selected personal and social characteristics previous research has related to well-being, within large urban, small urban, and rural residential categories.

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Subjective Well-being of the Aged

Research among older Americans on life satisfaction, morale, and related constructs has produced sufficiently consistent results to justify the creation of a single summary construct--subjective well-being (Larson, 1978). This concept attempts to reflect attitudes toward the life experience of older people along a positive-negative continuum.

With few exceptions, research in the United States has supported the hypothesis that, among the elderly, social interaction is a condition contributing to a sense of well-being (Maddox, 1968). This view, known as the activity theory, implies that the older person who ages optimally maintains the activities of middle age as long as possible. When decreased social interaction that characterizes old age occurs, individuals look for substitutes for the activities they are forced to relinquish (Havighurst et al., 1968).

The principal exception to the activity theory is the work of Cumming and Henry (1961) on disengagement which draws the opposite conclusion; that is, voluntary reduction of social interaction among the elderly is eventually a condition of the maintenance of well-being. Research has not confirmed the disengagement model (Botwinick, 1973). Rather, some studies show that, for most older people, the level of activity they have developed over a lifetime tends to persist into their later years (Riley et al., 1968; Maddox, 1968). Activity and disengagement patterns, then, may not be a function of age but of individual life styles.

After searching for new and more accurate measures of well-being, Neugarten et al. (1961) introduced a Life Satisfaction Index as a measure of subjective well-being based on neither the controversial activity nor disengagement theories. Several attitudinal measures have subsequently been developed which attempt to reflect a state of well-being as strictly an internal construct (Lawton, 1972; Bradburn, 1969). These and similar constructs measure successful adaptation to aging if the respondents report feelings of happiness and satisfaction with their past and present lives.

Larson's (1978) review of thirty years of research on subjective well-being establishes conclusive relationships between measures of well-being and certain social factors. Among the components of an older person's life situation, health, income, and social interaction tended to be the best predictors of well-being.

Rural-Urban Differences

Interests in rural-urban distinctions have a long history, dating back to 1938 when Wirth associated city living with increased isolation due to the breakdown of kinship ties in an urban-industrial society. Along with ecological, occupational, and sociocultural differences (Bealer, 1965), rural and urban differences have also been linked to personal and social characteristics such as sex, race, and age composition, health, and socioeconomic factors.

Rural-urban differences in attitudes and behavior are considered by many social scientists today as having disappeared or diminished as a result of the diffusion of mass culture through the media and public education

(Glenn and Hill, 1977). The character of rural people, for example, may not be due to their "rurality" but to influential social factors such as poverty (van Es and Brown, 1974).

In a reanalysis of the finding that rural residents expressed higher satisfaction than urban residents, rural-urban differences disappeared when selected social variables were used as controls (Sauer et al., 1976). These results suggest that significant differences in the adaptations of rural and urban residents may no longer exist, although the evidence is not unequivocal to this point. Other sociogists believe that important variations do exist between urban and rural social systems that, while clearly diminishing, are still crucial (Schnore, 1966).

One such variation may be between the rural and urban aged, who may have been less affected by the modernization process which has produced a more homogeneous society (Youmans, 1977). The rural aged, comprising 17 percent of the aged population, are viewed as the most impoverished segment of the older population (Lawton, 1977). They also tend to have become more isolated as their young family members have migrated to the city. While the urban aged must also tolerate negative aspects of city living, the rural elderly often are viewed as even more deprived. There is need for futher specification of rural-urban differentials in the social adaptation processes of the aged.

Research Methods

The data for this study were obtained from a Health and Nutrition Survey administered through the office of the National Institute of Mental Health from April 1971 to June 1974. A national probability sample of 32,000 persons, 1-74 years of age, was drawn from the civilian, non-institutionalized population. The present study focuses on the aged portion of that sample, 1,226 persons 65 to 74 years of age.

The questionnaire used for the survey included 18 subjective well-being items with self-reported answers on a negative to positive numerical rating scale. The 18 items were factor analyzed using the principle components method. Three factors were identified and interpreted as summarizing physical, cognitive, and affective item dimensions. The factors were named health, morale, and affect. Factor loadings, eigenvalues, and explained variance for each factor are shown in Table 1. One item did not load on any single factor and was excluded from analysis.

Health, morale, and affect are the dependent variables in this study. The first factor, health, is composed of items reflecting concerns about physical illness or fitness. The second factor, morale, deals with feelings of happiness and life satisfaction. Affect reflects feelings of nervousness or anxiety related to personal problems. In each the composite was scored such that a high score means high well-being. The items loading .50 or greater on each factor were standardized and summed to form each well-being measure. Standardized item alpha reliabilities for the three scales also are shown in Table 1.

The independent variables were measured as follows: (1) Age was coded from 65 to 74. (2) Education was coded in number of years of schooling.

(3) Income was coded in twelve categories, ranging from under $1,000 annually to $25,000 or more. (4) Sex was dummy coded 1 for female. (5) Race was dummy coded 1 for black. (6) Marital status was dummy coded 1 for married. (7) Widow was treated as a dummy variable and coded 1, as was (8) widower and (9) welfare recipient.

Multiple regression analysis was used to determine the effects of the set of independent variables on the dependent variables across the three categories of rural (under 2,500), small urban (2,500 to 25,000), and large urban (25,000 and above) places of residence.

Findings

Table 2 shows Pearson correlation coefficients between three dimensions of well-being and selected personal and social characteristics. Age was the only variable consistently found to be unrelated to well-being, although various aspects of marital status had inconsistent effects across residential categories. Income, education, and being married were positively associated with higher levels of self-reported health, morale, and affect dimensions of well-being. Being female, black, a widow, and on welfare, were negatively associated with well-being, although the positive effects of marriage and the negative impacts of widowhood tended to be much smaller in the rural subsample.

Table 3 regresses health, morale, and affect dimensions of well-being on selected personal and social characteristics in three residential categories. Health well-being was predicted by income in small urban and rural areas, but not in large urban areas. Higher educational levels were associated with higher health well-being in urban and rural areas.

Being female and on welfare was negatively associated with health well-being, although welfare did not predict in the urban subsamples. Widowers tended to report more health well-being in urban areas than in rural.

The overall pattern profiles the poverty-stricken aged female with a low level of education as having the lowest levels of health well-being. The factors considered here explained 21 percent of the variance in reported health well-being in the small urban subsample, but only 11 and 14 percent in the large urban and rural groups.

Income predicted the morale dimension of well-being in the urban areas, as did being married or being a widower. In rural areas, however, higher levels of education contributed to morale, whereas being female and on welfare was negatively related to morale. Rural residents may suffer greater effects of the traditional welfare stigma. These characteristics explained small proportions of variance in small urban and in rural areas (14 and 12 percent) but only 6 percent for large urban area residents.

The affect dimension of well-being referred to feelings of depression and low alertness of the respondent. Income predicted positive responses on this dimension in the urban samples, whereas being female predicted negative affect in large urban areas and rural areas. Welfare influenced the affect dimension only in rural areas. Regression analysis explained 19 percent of the affect variance in the small urban sample, but only 9 and 10 percent in the large urban and rural samples.

In the overall analysis, no consistent pattern can be noted although certain regularities can be discerned. The best prediction for all aspects of well-being occurred in the small urban portion of the sample. Potentially a more homogeneous group, differences on personal characteristics were more salient factors affecting well-being. The large urban and rural residential categories may have included a broader range of contextual differences that obscured or confounded the effect of personal and social characteristics.

Conclusions

A major objective of this study was to examine rural-urban contextual differences in the well-being of the elderly. We found little support for major differences in the way older people adapt to advancing age, but some of the findings support the notion of limited differences.

Rural areas tend to be more traditional, conservative, and generally lag urban areas in new trends and ideas. Those with socially-undervalued statuses in rural areas may be more likely to experience the structural effects of their situations than in urban areas where such statuses are more commonly found or accepted. Thus, we found being female and on welfare to be negatively associated with each dimension of well-being when other factors were held constant, whereas the consistency or magnitude of these differences were not found in either urban subsample.

Recognizing the possible confounding effects of the traditional measurement of the rural-urban variable, a replication of this study which broadens the definition of urban context may be more fruitful in generating greater residential differences. Another limitation of this preliminary research effort may be a redundancy in the choice of independent variables. The overlapping of the female, widow, and widower variables may be obscuring effects in the regression analysis which were present in the table of correlation coefficients.

The data set used in this secondary analysis included no measures of social participation. Consequently, we were not able to include this important predictor of life satisfaction in our research effort.

Reflecting on future research, if it can be demonstrated that the rural aged are, in fact, the most impoverished and deprived segment of the aged population, the use of residential context in an appropriate research design should reflect the direction and extent of these differences. Future research in social gerontology is needed in rural areas to enable social agencies for the aged to recognize differential problems and needs.

The study was undertaken in order to obtain greater specification of those factors contributing to well-being among the elderly. Although we examined specific aspects of marital states and their consequences for well-being and found significant differences, further attention should be directed to the interaction of various social and personal characteristics of the aged as they profile situations and lifestyles leading to generally higher or lower levels of well-being.

The use of residential context in this study has produced relatively inconsistent patterns, supporting Bealer et al.'s claim (1965) that while rural-urban defined in terms of size is precise, convenient, and easily operationalized, it may no longer prove to be a meaningful sociological variable.

Table 1. Principle Component Factor Structure of Subjective Well-Being Items (Varimax Rotated Factor Matrix)

	Well-Being		
Item	Factor 1	Factor 2	Factor 3
AFFECT			
feeling blue	.63	--	--
nothing worthwhile	.71	--	--
feeling anxious	.72	--	--
under pressure	.71	--	--
bothered by nerves	.56	--	--
HEALTH			
bothered by illness	--	.68	--
worried about health	--	.63	--
felt exhausted	--	.75	--
waking up rested	--	.67	--
feeling energetic	--	.18	--
feeling in general	--	.59	--
feeling relaxed	--	.60	--
MORALE			
satisfied with life	--	--	.66
interesting life	--	--	.72
feeling cheerful	--	--	.58
control of behavior	--	--	.51
sure of myself	--	--	.62
EIGENVALUE[a]	7.90	1.28	1.19
PERCENT OF VARIANCE	43.90	7.10	6.60
STANDARDIZED ITEM ALPHA	.85	.87	.76

[a] VALUES FROM INITIAL FACTOR MATRIX

Table 2. Pearson Correlation Coefficients Between Health, Morale, and Affect Dimensions of Well-Being and Selected Personal and Social Characteristics of the Aged

	Well-Being								
	Health			Morale			Affect		
	Large Urban	Small Urban	Rural	Large Urban	Small Urban	Rural	Large Urban	Small Urban	Rural
Total Income	.19***	.36***	.24***	.16***	.30***	.14**	.19***	.37***	.16***
Education	.19***	.16*	.24***	.10**	.16*	.20***	.11**	.17*	.21***
Age	.01	-.08	-.03	.06	.04	-.01	.03	-.02	.00
Female	-.22***	-.12	-.13**	-.14***	.00	-.15***	-.22***	-.17*	-.17***
Black	-.12***	-.17*	-.11*	-.04	-.12	-.13**	-.03	-.07	-.10*
Welfare	-.12**	-.18**	-.25***	-.08*	-.09	-.24***	-.12**	-.07	-.18***
Married	.12***	.25***	.06	.15***	.18**	.14**	.15***	.24***	.09*
Widow	-.13***	-.23***	-.07	-.14***	-.13*	-.13**	-.14***	-.23***	-.10*
Widower	.10**	.10	.04	.06	.07	.01	.05	.08	.01
	N=600	N=177	N=449	N=600	N=177	N=449	N=600	N=177	N=449

* $p < .05$

** $p < .01$

*** $p < .001$

Table 3. Regression of Health, Morale, and Affect Dimensions of Well-Being on Selected Personal and Social Characteristics of the Aged (Standardized coefficients)

	Well-Being								
	Health			Morale			Affect		
	Large Urban	Small Urban	Rural	Large Urban	Small Urban	Rural	Large Urban	Small Urban	Rural
Total Income	.08	.28***	.11*	.10*	.25**	-.02	.12*	.30***	.05
Education	.13**	-.03	.18***	.04	.02	.17**	.04	.06	.18***
Age	.02	-.02	-.01	.07	-.00	.00	.04	.05	.00
Female	-.21***	-.02	-.17**	-.09	.10	-.18**	-.20***	-.08	-.23***
Black	-.05	-.15	.03	-.00	-.06	-.02	.03	-.05	-.00
Welfare	-.05	-.08	-.18***	-.04	.01	-.19***	-.08	.06	-.11*
Married	.10	.22	.01	.15*	.30*	.11	.11	.19	.05
Widow	.12	.04	.06	.06	.13	.08	.13	.02	.07
Widower	.11*	.21*	.06	.10*	.20*	.06	.06	.14	.02
R^2	.11	.21	.14	.06	.14	.12	.09	.19	.10
F-value	7.31***	4.72***	7.31***	4.12***	2.82**	6.09***	5.74***	4.21***	5.39***

* $p < .05$
** $p < .01$
*** $p < .001$

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URBAN-RURAL DIFFERENCES IN CITIZENS' PERCEPTION OF CRIME CONTROL: AN EXPLORATION INTO LAW ENFORCEMENT ORGANIZATION*

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and

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With increasing rural crime rates, sociologists' attention has been turning toward the study of this phenomenon. Previous studies have primarily focused on crime rates and sex differences in rural crime in comparison with urban crime (Steffensmeier and Jordan, 1978; Lagey, 1957.) Little attention has been given so far to the effect of law enforcement organization on citizens' perceptions of crime and police protection. It is to this facet of rural-urban comparisons that this paper is addressed.

Studies of rural-urban attitudinal differences have remained sparce. Glenn and associates studies (Glenn and Alston, 1967; Glenn and Hill, 1977) or rural-urban differences in attitudes remain some of the foremost in this area. They have found that there exists some attitudinal differences between rural and urban dwellers which could not be accounted for by controlling for "socioeconomic status, age, region of residence, religious composition or economic interests" (Glenn and Alston, 1967:400.) They conclude that some of the differences are attributable to residence locale (whether one lives in a rural or urban environment.)

Most current studies of the public's perception of crime and crime control are based upon or refer to data from the National Crime Survey. Most persons see rising crime as a national rather than a neighborhood problem and are unaffected in their fear of crime by previous victimization, feel less threatened in their own neighborhood and rate their police highly. Yet these people recognize that police performance needs improvement (Garofalo, 1977a; Washington, D. C., 1978.) Unfortunately, however, most of these public opinions concerning crime were collected exclusively from urban respondents (Garofalo and Hindeland, 1977.) Consequently, one knows something about the nature of urban attitudes concerning crime and crime control, but nothing about rural attitudes along these same dimensions.

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Such findings raise questions about the public's attitudes toward crime and crime control. With the exception of Boggs (1971), little light has been shed upon this matter. As she indicates, there appears to be a greater concern for crime and a greater sense of dissatisfaction with police services at the urban levels of residence than at the suburban or rural levels (Boggs, 1971: 321-322), even though 80.8 percent of these city inhabitants were satisfied with these services. It is also possible that the higher rates of urban crime may be related to a perception that police-community relations within the city are poorer than in suburbia or rural areas, particularly in light of the city dwellers' slightly stronger sense of dissatisfaction with police services.

If these differences between city, suburban and rural attitudes about crime and its control (i.e., law enforcement) do exist, there is one additional variable which may figure into this configuration of sentiments. This concerns the organization of law enforcement. As Bruce Smith (1966) has argued, the population basis of county political structures is simply not large enough to support modern police systems. Hence there has been an increasing sharing and centralizing of law enforcement services and resources over the last two decades. It is then possible that police departments in certain counties which have more than one law enforcement agency in operation, as opposed to a unified or consolidated police district, will be seen as more inefficient--providing poorer services and being less effective in the battle against crime.

The literature search concerning the effect of police organization on citizens' perceptions of crime produced virtually no information. Jones (1939) addressed the role of a consolidated police force in a rural area. He examined the state police's role in areas with no other form of police protection, that is, a local police force or sheriff. He concluded that centralization of the police force led to more efficient and effective law enforcement and citizen protection (Jones, 1939: 188-189.) Jones' concern was primarily with its effect on how the inhabitants of those counties felt about crime and police protection as problems in their community.

Jones' contention that centralization leads to more efficiency and effectiveness in crime control raises an interesting point. If crime control under a consolidated system is more effective than under a segmented system, then the inhabitants of areas with a consolidated system should perceive crime as less of a problem than those living in areas with segmented systems. It may be argued that, consistent with "control theories" of deviance (Frazier, 1976), greater control would lead inhabitants to perceive less opportunity for criminal behavior and, therefore, they would not perceive crime as a serious problem in their community, as well as viewing police protection in their area as adequate.

We have developed, then, four hypotheses to be explored. The first three deal with the effect of type of police organization, consolidated versus segmented, on citizens' perceptions of crime, police protection and police-community relations. Our hypotheses are:

1) Citizens living within a county having a consolidated police force will perceive crime as a less serious problem than those living in a county with segmented police departments;

2) Citizens living within a county having a consolidated police force will perceive police protection as a less serious problem than those living in a county with segmented police departments; and

3) Citizens living within a county having a consolidated police force will perceive police-community relations as a less serious problem than those living in a county with segmented police departments.

The four hypothesis is that the above relationships will hold across residence locales; that is, rural, town and urban dwellers in an area with a unified police force will perceive each of the above issues as a less serious problem than their counterparts in counties with a segmented police force. Formally stated, the hypothesis is:

4) Urban dwellers will perceive crime, police protection and police-community relations as more serious problems than town dwellers, who will perceive these to be more serious than will rural dwellers. Those citizens living in counties having segmented control forces will perceive these problems as more serious than citizens living in counties having a consolidated control force, across residence locales.

Duval County, located in northeast Florida, provides an opportunity to test these hypotheses. Duval County contains the greater Jacksonville area, plus the remainder of the suburbs and rural areas which were annexed in 1967. All law enforcement agencies were subsumed under the Sheriff's Department at that time, providing an example of a consolidated police organization covering an entire county. This county is unique among Florida counties in this respect, providing a natural basis for comparison.

DATA AND METHODS

The data for this study were drawn from the larger Focus On Florida survey, designed to gather input on the attitudes and opinions of Florida residents. A sample of 9,800 was randomly selected from a statewide list of licensed drivers to represent all adults in Florida. The size of this sample was chosen to insure that the number of usable questionnaires returned would approximate 6,000 or about one questionnaire per 1,000 adults residing in the state.

Each of the 67 counties' contributions to the sample was based on the proportion of the state's population residing in that county. Once the county-based samples were determined, the sample was further proportioned into three age groups based on the age distributions for each county. Finally the sample selected within each of the three age groups was further apportioned by sex; again the distributions reflected the actual distributions within the age groups within each county.

In addition to the 9,800 Floridians chosen for the sample, another 1,241 were selected for data analysis to be performed on a county level. The additional respondents were selected to provide sufficient sample size of the less populous areas for any county-based analysis. A total of 5,926 usable questionnaires were received with 2,549 questionnaires counted as undeliverable. Results reported on a statewide level were based on the proportional sample of 5,354 usable responses.

For the purposes of this analysis, the 5,926 respondents were grouped according to residence locale, yielding 1,037 rural residents (rural areas defined as communities with less than 2,500 residents), 1,975 town residents (town defined as communities of 2,500 to 50,000 residents) and 1,987 city residents (city areas comprised of over 50,000 residents. This distribution accurately reflects the distribution of the state's population as compared with the 1970 census figures.

RESULTS

Table 1.* State-wide Citizens' Perceptions By Residence Locale.

Perceptions of formal Crime Control Problems	Residential Locale			
Adequacy of police protection	Rural (N= 1037)	Town (N=1975)	City (N=1987)	State (N=5354)
No Problem	34.4	42.6	32.9	37.4
Small Problem	26.3	26.4	27.5	26.4
Medium Problem	25.1	20.6	26.7	23.9
Serious Problem	14.2	10.4	12.8	12.3
Police-Community Relations				
No Problem	36.1	40.2	32.4	36.4
Small Problem	29.8	29.7	33.3	30.9
Medium Problem	21.7	21.3	24.3	22.8
Serious Problem	12.3	8.7	10.0	9.9
Crime				
No Problem	9.1	6.8	2.7	5.3
Small Problem	33.1	31.2	14.7	23.7
Medium Problem	33.7	35.2	35.1	34.6
Serious Problem	24.1	26.8	47.6	36.4

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* Some percentages may not sum to 100 percent as a result of weighting of the data.

The results from Table 1, citizens' perceptions of crime by residence locale for the entire state, are similar to those found in previous studies. Overall, with respect to the adequacy of police protection, no residence group perceived this issue as a serious problem, with the town locale reporting the highest agreement that police protection was not a problem. On the issue of police-community relations, a similar trend was found with the town locale again reporting the highest agreement that community relations were not a problem. On the other hand, the issue of crime as a community problem was overwhelmingly perceived by all locales as a medium to serious problem. City residents exhibit the highest perception of crime as a serious problem, with 47.6 percent responding that crime is a problem, as compared to 24.1 and 26.8 percent for rural and town locales. This may be the result of higher crime and victimization rates within urban areas as experienced by and reported to the residents of such areas.

As Boggs (1971:323) notes, citizens' perceptions of police protection are indicative of their reliance on formal means of social control. Table 2 presents the citizens' perceptions on these same three issues comparing Duval County with the rest of the state. As previously noted, Duval County has organized its police force into a consolidated organization, as compared with the segmented police organizations found in the remaining counties of Florida. Table 2 depicts the rural, town and city comparisons on the aforementioned issues as influenced by segmented versus consolidated police organization. In addition, Table 3 and 4 are delineated in a similar manner with concomitant attitudinal variables for our two key issues: 1.) Perceived adequacy of police protection and 2.) Perception of crime.

Table 2.* Residents' Perceptions of Crime by Police Organization.

Perceptions of Formal Crime Control Problems	Residential Locale							
	Rural		Town		City		State	
	Duval (N=19)	Other (N=1376)	Duval (N=34)	Other (N=2039)	Duval (N=236)	Other (N=1724)	Duval (N=289)	Other (N=5139)
Adequacy of police protection								
No Problem	27.8	34.4	39.4	42.7	27.7	33.6	29.1	37.4
Small Problem	16.7	26.5	24.2	26.4	30.7	27.1	30.7	26.7
Medium Problem	38.9	24.9	15.2	20.6	26.0	26.8	26.0	23.9
Serious Problem	16.7	14.2	21.2	10.3	15.6	12.5	15.6	12.0
Police-Community Relations								
No problem	33.3	36.2	30.3	40.4	25.8	33.3	26.8	36.9
Small Problem	22.2	29.9	21.2	29.9	34.7	33.1	32.4	31.0
Medium Problem	44.4	21.4	27.3	21.2	26.3	24.1	27.5	22.2
Serious Problem	00.0	12.5	21.2	8.5	13.1	9.6	13.2	9.9
Crime								
No Problem	5.3	9.2	6.3	6.8	1.7	2.9	2.4	6.1
Small Problem	26.3	33.2	21.9	31.3	10.6	15.2	12.9	26.4
Medium Problem	31.6	33.8	34.4	35.2	38.7	34.6	37.8	34.6
Serious Problem	36.8	23.9	37.5	26.6	48.9	47.4	46.9	32.9

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*Some percentages may not sum to 100 percent as a result of weighting of the data.

Table 3.[*] Citizens' Attitudes Toward Police Organization by Residence Locale

Attitudes Toward Police Organization	Residential Locale					
	Rural		Town		City	
Adequacy of Police protection	Duval	Other	Duval	Other	Duval	Other
No Problem	27.8	34.4	39.4	42.7	27.7	33.6
Small Problem	16.7	26.5	24.2	26.4	30.7	27.1
Medium Problem	38.9	24.9	15.2	20.6	26.0	26.8
Serious Problem	16.7	14.2	21.2	10.3	15.6	12.5
How much would more law enforcement officers help reduce crime?						
A lot	21.1	23.5	32.4	25.7	30.0	27.8
Some	63.2	62.9	59.2	62.0	59.1	61.7
Not at all	15.8	13.5	14.7	12.3	11.0	10.6
How much would better training of law enforcement officers help reduce crime?						
A lot	21.1	40.8	29.4	41.9	42.6	39.2
Some	63.2	54.0	58.8	52.7	49.8	53.6
Not at all	15.8	5.1	11.8	5.3	7.6	7.2

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[*] Some percentages may not sum to 100 percent as a result of weighting of the data.

Table 4. Citizens Attitudes Toward Crime by Residence Locale[*]

Attitudes Toward Crime Control	Residence Locale					
	Farm		Town		City	
	Duval	Other	Duval	Other	Duval	Other
Crime as a Problem						
No Problem	5.3	9.2	6.3	6.8	1.7	2.9
Small Problem	26.3	33.2	21.9	31.3	10.6	15.2
Medium Problem	31.6	33.8	34.4	35.2	38.7	34.6
Serious Problem	36.8	23.9	37.5	26.6	48.9	47.4
How muc would upholding the death penalty help reduce crime?						
A Lot	73.7	75.7	67.7	72.1	73.4	70.0
Some	15.8	15.6	29.0	18.1	16.5	19.8
Not at All	10.5	8.7	3.2	9.8	10.1	10.2
How much would gun control help reduce crime?						
A Lot	26.3	36.3	50.0	53.6	42.8	52.2
Some	21.1	32.8	32.4	27.2	38.1	27.4
Not at All	52.6	31.0	17.6	19.2	19.1	2.4
How much would swift justice of an accused person in the courts help reduce crime?						
A Lot	50.0	78.1	74.2	80.0	80.7	81.0
Some	50.0	20.1	22.6	17.2	17.6	17.5
Not at All	0.0	1.8	3.2	2.0	1.7	1.5

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[*] Some percentages may not sum to 100 percent as a result of weighting of the data.

On the whole, Table 3 shows that Duval County residents perceive police protection as a more serious problem than residents of the remainder of the state. Those in the town locale within Duval County exhibit the highest discontent with police protection, with 21.2 percent believing the issue to be a serious problem. The rural area of Duval County shows 55.5 percent of the residents viewing the issues as a medium to serious problem as compared with the rural residents in the rest of the state showing a 39.1 percent agreement on the issue as a medium to serious problem. There appears to be no significant difference between the town or city locales in Duval County and the rest of the state on this issue.

Duval County residents and the other Florida residents do not disagree on the belief that more law enforcement officers would help to reduce local crime. Conversely, there is a substantial difference between rural and town Duval residents and rural and town residents throughout the rest of the state concerning the effect of better training of law enforcement officers as a means of reducing crime. For city residents in both sample groups there is agreement that better training would reduce crime. However, between sample groups in rural and town locales, there is vast disagreement on this point, with 15.8 percent of Duval rural residents believing such efforts would not help reduce crime as compared to only 5.1 percent of the remaining state's rural sample. A similar, though not as severe, difference is found between the two town sample groups.

Although the general trend concerning citizens' perceptions of crime as a problem is toward viewing crime as a serious problem, there exists a vast difference between the rural and town locales of Duval County and the rural and town locales of the remainder of the state. That is, for rural Duval County residents, 36.8 percent view crime as a serious problem compared with only 23.9 percent of the remaining rural Florida residents. Only 26.3 percent of rural Duval residents view crime as a small problem, whereas 33.2 percent of the remaining rural Florida residents perceive it as a small problem. Similarly, the town locales in Duval County and the remainder of the state differ on the seriousness of crime (37.5 percent and 26.6 percent, respectively). Again the difference between the two locales can be noted in the reporting of crime as a small problem (21.9 percent and 31.3 percent, respectively.) For city locales in both sample groups, no substantial difference is noted in any category.

The attitudinal variables concerning the effectiveness of the death penalty, gun control and swift and sure justice on the reduction of crime show virtually no significant differences across residence locales between type of police organization. The only substantial difference is noted for the rural sample groups on the gun control variable. Rural Duval residents were highly agreed that gun control would have little effect on reducing crime, when compared to rural residents throughout the remainder of the state, and indeed, compared with any other sample group.

DISCUSSION

It was noted earlier that studies have found rural-urban differences which can only be accounted for by the respondent's urban or rural residence (Glenn and Alston, 1967; Glenn and Hill, 1977.) Our results do indeed show rural-urban differences in citizens' perceptions of crime and police protection. This finding is consistent with the earlier work of Boggs (1971) on urban, suburban and rural differences in how people perceive and react toward crime and its prevention. That such a difference does exist, and is more conservatively-oriented for rural than urban dwellers, does not mean that we should look to a "rural mentality" for the answers (Vera and Santoyo, 1978.)

In this present study Tables 3 and 4 demonstrate this difference between rural, town and urban locales, in this case for attitudes toward potential measures to reduce crime. More importantly, there are no differences between these attitudes as expressed by Duval County residents and the residents of the remainder of the state. These attitudes concerning crime and police protection do not appear to influence the Duval-not Duval differences for our key variables of adequate police protection and crime as a community problem. These attitudinal differences resemble a rural, town and city differentiation, not a Duval-not Duval difference, or the consolidated versus segmented forms of police organization. For the purpose of this exploratory study, we may view police organization as an intervening variable in citizens' perceptions of crime control as a community problem.

The results of our analysis, however, do not lend support to our hypotheses. Although we did find the trend that as one moved from city to rural areas, perceptions of crime as a serious problem did decrease, it was found that rural residents in the consolidated county perceived crime as a serious problem considerably more often than their counterparts in the segmented counties. A tendency was also found for rural residents in the consolidated county to see police protection as more problematic than their counterparts.

We offer a two-step explanation for this finding. First, although informal interviews with Duval law enforcement officials informed us that about equal numbers of officers were deployed in each "zone" at all times, some zones are geographically larger than others. Thus, officers in the inner-city zone are more visible than those in the rural zones, due to the increased area covered in the rural zones. It was also learned that officers tended to be kept closed to the more heavily populated areas, being concentrated in the outlying areas only when the reports of crime increased. Thus, rural residents in this area might feel slighted on police protection. In segmented counties, we learned, the Sheriff's office has responsibility for non-incorporated areas and patrols them heavily. Thus, the reduced rural visibility of law officers in the consolidated county may play a major role in why these residents felt that crime and police protection were major problems.

Reduced visibility coupled with higher crime rates in the consolidated county as a whole (blamed primarily on the "low class" inner-city residents by police) may explain the rural residents' perceptions of crime as a major problem. As stated above, it is not one's personal experience with criminal behavior which influences one's perception of its prevalence, but what one hears about crime in the area. Thus, since Duval County rural residents hear about high crime rates, they may perceive it as a serious problem, although it has not touched them personally.

Our findings indicate that there are differences in how people living in different residence locales perceive the prevalence of crime and adequacy of police protection. We have explored the influence of type of police organization on these perceptions and concluded that, due to the variation between rural, town and urban dwellers' perceptions of crime as a problem in Duval County and other areas of the state, there is some influence. At this time we are unable to specify the exact effect of police organization on citizens' perceptions of crime, but are exploring its effects along with the effects of other variables, such as race, income and sex. Our findings at this time are exploratory in nature and must be followed up, but we feel that future research into the nature of the police organization on how people feel about their safety is important and fruitful.

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Session 11

Status Attainment

"Marriage Deferment and Achievement of Rural Youth: Comparisons of Blacks and Whites". Sue Sanchez and Arthur G. Cosby, Texas A & M University.

"Preconditions for Growth and The Growth Orientation Among Public Officials". Richard C. Maurer and James A. Christenson, University of Kentucky.

"The Effect of Community Attachment on Post-Secondary Educational Choices and Occupational Aspirations". Roger Hecht and Deborah Hall, East Tennessee State University.

MARRIAGE DEFERMENT AND ACHIEVEMENT OF RURAL YOUTH: COMPARISONS OF BLACKS AND WHITES*

by

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In recent years understanding of the American stratification system has advanced considerably from information resulting from the study of status attainment processes (Blau and Duncan, 1967; Sewell et al., 1969, 1970; Haller and Portes, 1972; Porter, 1974; Alexander and Eckland, 1974; Portes and Wilson, 1976 among others). This body of literature has provided a new understanding of influences of social origins on later attainments as well as the effects of various factors which intervene at different points between origins and attainments. One consequence of this approach has been to bring the life cycle perspective into stratification research as a useful conceptual tool. This study attempts to address this body of research by introducing the life cycle notion of marriage timing as a potentially important influence in attainment processes.

It has been found that as young people mature they form attitudes toward their eventual life plans. These life plans appear to focus around at least two central ideas: (1) education with career plans; and (2) marriage and family plans (Bayer, 1969a). With these concepts forming a major part of a person's life, it has proven useful to determine to what extent and in what manner the two interact with and/or conflict with each other while individuals establish their statuses. The life cycle perspective provides a framework for examining the effects of these two areas by ordering events in a meaningful sequence for analysis.

The primary purpose of this research is to investigate the effect deferment of marriage has on the ability of youth to achieve higher levels of education and, therefore, by inference, higher levels of occupational status. Educational attainment has been investigated as one of the primary variables affecting status attainment (Sewell et al., 1969, 1970; Alexander and Eckland, 1974). This research investigates the possibility that marriage deferment is an important variable in status attainment research of similar significance to educational attainment. In status attainment research, level of education is seen as an intervening variable that transmits adolescent influences such as significant other influences, grade point and aspirations to subsequent attainments. From the life cycle approach marital deferment can be viewed as a variable that can potentially enhance achievement.

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REVIEW OF LITERATURE

The Life Cycle

The life cycle perspective assists the study of status attainment in two important ways. First, it can provide a better understanding of how social origins influence a person's opportunities to achieve status as well as providing an understanding of the importance of educational attainment in the determination of one's status (Sewell and Hauser, 1972). Secondly, because it also provides a causal sequence of events that are involved in the transmission and eventual attainment of status, it can be useful in providing a better understanding of the interaction of the education and career plans with the family plans of a young person.

According to Bates and Harvey (1975), the average American's life cycle contains six stages--infancy, childhood, adolescence, adulthood, middle age and old age. As an individual moves from one stage to another, alterations in the person's activities occur and changes in the quality and amount of their participation within the society takes place.

There are critical points in the life cycle where drastic changes in the person's relationships, activities, and behavior occur. These changes are a result of the sudden engagement of new and more complex roles by individuals, while they at the same time leave behind simpler and more confortable roles. During the adolescence to adult transition Bates and Harvey (1975) point to leaving school, entering work, marriage and parenthood as a major crisis period during the life cycles. From the life cycle perspective marriage and parenthood are of similar importance as education and occupation.

Life Cycle and Attainment

Attainment, both educationally and occupationally, is essentially a process that begins early in the life cycle and continues through adulthood and middle age (Falk and Cosby, 1974). Because of this, a person's attainment can be viewed as a result of the accumulation of prior factors, influences, events, experiences and positions that people are exposed to.

In the childhood stage of the growth cycle individuals begin to form aspirations concerning their future. These first aspirations often take the form of fantasies concerning what the child desires as far as education, marriage, occupation, and number of children wanted. Slowly, as they mature, their choices begin to take the form of more realistic expectations (Ginzberg, et al., 1951).

It is possible for a person's aspirations, expectations, and subsequent attainments to vary. This occurs because the process of achieving certain levels of attainments is never ending in that when one set of expectations is achieved, new aspirations and expectations will be formed while old ones may be revised (Cosby, et al,. 1976). From this we recognize that childhood and adolescent experiences and attitudes have an important effect on subsequent adult attainments but these effects undergo constant modifications and adjustments.

Sample

The data analyzed in this study were obtained from a larger parent project entitled the Southern Youth Study (SYS) which was collected in three waves. The

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SYS consists of high school age, rural youth from the six southern states of Alabama, Georgia, Louisiana, Mississippi, South Carolina and Texas.

Wave I of the SYS was collected in 1966 from a population of sophomore high school students. Students who were present for classes on a specified day were given a group-administered questionnaire. No attempt was made to contact those students who were not present. The final sample consists of students who are socio-economically similar and that are from rural counties.[1] Wave II was conducted in 1968 when a similar questionnaire was given to all seniors at high schools used in the first wave. After these questionnaires were completed, they were matched with questionnaires from Wave I. Only questionnaires from those students who participated in both waves were used.

In 1972, four years after panel participants were expected to graduate from high school, a second follow-up was conducted. At this point a stratified sample from Waves I and II was taken. This sample was stratified by both race (50:50) and sex (60 male:40 female) within each state.[2] Personal interviews, mail questionnaires and telephone interviews were used at this point. The final sample consisted of 1,052 black and white rural youth--201 black females, 247 black males, 240 white females, 364 white males.

Variables

Several variables were used to analyze the effect of marriage deferment on achievement attitudes and attainments of young people. These variables were chosen because they closely coincide with variables that have been used in previous status attainment research.

Aspirations and expectations for occupations were measured in 1968 and 1972 according to Duncan's (1961) SEI. These were separated into two main groups. Those with SEI scores of forty-five or less were considered to have lower socio-economic aspirations and expectations. Those with SEI scores greater than forty-five were considered to have middle to high socio-economic aspirations and expectations.

Educational aspirations and expectations were measured in 1968 and 1972. These variables were divided into two groups also: those with less than college aspirations or expectations and those with college aspirations or expectations. Educational and occupational attainments as of 1972 were coded in the same manner as the previous educational and occupational variables.

The final variable utilized was marital status in 1972. For purposes of this study, marriage deferment has been operationally defined in a three category classification. The first category includes respondents who were married during high school or within two years of high school graduation. The second category is made up of respondents who were married in the period beginning two years through four years after high school graduation. The third category consists of respondents who were not married at the time of the 1972 recontact. This division distinguishes between youth who married early in the life cycle, those who marry after a certain amount of post-high school experience, and those who marry after the normative age of 22.

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[1] For more details see Education and Work in Rural America: The Social Context of Early Career Decision and Achievement, Chapter III John K. Thomas.

[2] Mississippi was omitted because comparable data was not available for each wave for that state.

Analysis

Contingency table analysis was utilized to determine the relationship between the antecedents to and consequences of marriage deferment. Chi square values were computed for each table and evaluated using the .05 level of statistical significance. A coefficient of contigency (C) was computed for each table as a measure of association. Sex and race controls were carried throughout the analysis.

RESULTS

Analysis of the data is conducted in three parts. The first examines adolescent attitudes concerning education and occupations as antecedents to marriage deferment. In the second portion consequences of marriage deferment on newly-formed, early adult education and occupation attitudes are investigated. Finally, analysis of the consequences of marriage deferment on early adult educational and occupational attainments was conducted.

Table 1 provides a breakdown of the marriage deferment behavior of panel participants. Approximately one-half of the participants were married at the time of the 1972 recontact but substantial differences existed between race and sex categories. Fewer blacks than whites married early. Only 16 percent of the black men and 24 percent of the black women married within the first two years after high school while 20 percent of the white men and 46 percent of the white women were married at this point. The explanation for this variation in unclear. Perhaps, since blacks have many hardships to contend with during the course of their lives, they curtail marriage because it could be an additional factor which would further complicate their lives. A second explanation could be that many of the blacks who married early dropped out of high school and were, because of sampling techniques used, excluded from the sample. As might be expected women in each race married earlier than men, especially those who married within the first two years after high school.

Antecedents to Marriage Deferment

Adolescent attitudes concerning educational and occupational preferences are analyzed as antecedents to marriage deferment. Table 2 summarizes these comparisons.

Educational Preferences, 1968

Two measures of adolescent educational preferences are examined--aspirations and expectations. In both cases, analysis showed that educational preferences had a significant relationship on marriage deferment for whites, both males and females. In general, it was found that whites who had aspirations for and who expected to attain college educations have a tendency to defer marriage. For example, of the white males who aspired to college educations 60 percent were unmarried in 1972. On the other hand, 37 percent of the males who aspired to less than college educations were unmarried in 1972. In the case of educational expectations, 64 percent of the males who expected to attain college educations were unmarried in 1972, with only 39 percent of the males who expected less than a college education remained unmarried. White women exhibited a similar pattern. Thirty-eight percent of the females who expected college educations were unmarried in 1972, while only 22 percent of those who expected to attain less education were unmarried.

TABLE 1: Frequency of Marital Deferment of Southern Youth Study: Race and Sex Comparisons

	BLACK		WHITE		
	Males	Females	Males	Females	Total
	% (N)	% (N)	% (N)	% (N)	% (N)
Married Within Two Years After High School...........	16 (40)	24 (49)	20 (73)	46 (111)	26 (273)
Married Within Four Years After High School..........	19 (46)	19 (38)	29 (104)	26 (63)	24 (251)
Not Married As of 1972...........	65 (161)	57 (114)	51 (187)	28 (66)	50 (528)
TOTAL	100 (247)	100 (201)	100 (364)	100 (240)	100 (1052)

TABLE 2: Contingency Coefficients Between Adolescent Attitudes and Marital Deferment

	BLACK		WHITE		Comments
	Male	Female	Male	Female	
Educational Aspirations in 1968 by Marital Deferment	X^2 = .32 C = .04 df = 2	X^2 = .76 C = .06 df = 2	X^2 =23.18* C = .27 df = 2	X^2 =17.20* C = .26 df = 2	Higher level educational aspirations were associated with marriage deferment for white males and females.
Occupational Aspirations in 1968 by Marital Deferment	X^2 = 1.81 C = .09 df = 2	X^2 = .88 C = .07 df = 2	X^2 =13.88* C = .20 df = 2	X^2 = 5.21 C = .15 df = 4	High level occupational aspirations were found to be associated with deferment of marriage for white males only.
Educational Expectation in 1968 by Marital Deferment	X^2 = 1.30 C = .07 df = 2	X^2 = 2.71 C = .12 df = 2	X^2 =33.31* C = .29 df = 2	X^2 =21.14* C = .15 df = 2	Expectations for College educations associated with marriage deferment for white males and females.
Occupational Expectations in 1968 by Marital Deferment	X^2 = .53 C = .05 df = 2	X^2 = .45 C = .05 df = 4	X^2 =23.13* C = .26 df = 2	X^2 =17.05* C = .26 df = 4	Expectations for higher level occupations was associated with deferment of marriage for both white males and females.

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*Significant at the .05 level

Overall a larger proportion of whites than blacks exhibited expectations for college eudations. Approximately 40 percent of the black males and females expected to attain college educations, while 51 percent of the white males and 36 percent of the white females expected higher levels of education. All race and sex categories had a lower percentage of people who expected to attain college educations as compared to aspirations.

Occupational Preferences, 1968

Adolescent aspirations and expectations were examined in conjunction with occupational preferences. White males were the only group to show a significant relationship between adolescent occupational aspirations and marriage deferment while both white males and females exhibited significant relationships between expectations and marriage deferment.

Analysis showed that white males who had adolescent aspirations for high level occupations tended to defer marriage. For example, 56 percent of the white males who aspired to higher level occupations were unmarried in 1972, while only 41 percent of the males who had aspirations for occupations with lower scores were unmarried. Along the same lines, whites who expected to attain occupations with SEI scores greater than forty-five had a tendency to defer marriage. This trend is readily observable in that 60 percent of the white males who expected higher-scored occupations were unmarried in 1972, while 43 percent of those who expected to attain lower-scored occupations were unmarried in 1972. For white females, 35 percent of those who expected occupations with scores over forty-five were unmarried in 1972. Twenty-three percent of those who expected lower scored occupations remained unmarried.

Analysis for females was more complicated because of the inclusion of "housewife" as an occupational choice. Seventy percent of the black females expected higher scored occupations and only 3 percent expected to be housewives. Fifty-three percent of the white females, on the other hand, expected to achieve higher-scored occupations and 29 percent expected to be housewives.

Four variables were utilized to determine the relationships between adolescent educational and occupational attitudes and marital deferment. Seven of the eight possible relationships were found to be significant for whites while none of the educational or occupational attitudes proved to be significant for blacks. This indicates that adolescent achievement motives and marital deferment are bound together for whites while this does not appear to be the case for blacks. The behavior pattern of whites coincides with the theoretical and empirical writings of Bayer (1969a, 1969b). He noticed that behavior patterns of young adults were influenced by adolescent attitudes, especially educational aspirations. The reasons for blacks not behaving in the same manner as whites is unclear. It is possible that the configuration of achievement attitudes of white youth both include and reconcile marriage plans with the more obvious education and occupation orientations, whereas for black youth, the configuration is more segmented with compartmentalized achievement attitudes on the one hand and familial orientation on the other.

Early Adult Attitudes as Consequences

The second phase of analysis was concerned with examining the consequences of marriage deferment on newly-formed early adult attitudes concerning education and occupations. Both aspirations and expectations were considered. Table 3 summarizes these comparisons.

TABLE 3: Contingency Coefficients Between Early Adult Attitudes and Marital Deferment

	BLACK		WHITE		Comments
	Male	Female	Male	Female	
Marital Deferment by Educational Aspirations in 1972	X^2 = .12 C = .02 df = 2	X^2 = .86 C = .06 df = 2	X^2 = 8.34 C = .15 df = 2	X^2= 12.63* C = .22 df = 2	Marital deferment was found to be associated with aspirations for a college education for white males and females.
Marital Deferment by Occupational Aspirations in 1972	X^2 = 4.69 C = .14 df = 2	X^2 = 8.26 C = .20 df = 4	X^2 =16.65* C = .21 df = 2	X^2 =17.43* C = .26 df = 4	The relationship between marital deferment and high level occupational aspirations was found to be significant for white males and females.
Marital Deferment by Educational Expectations 1972	X^2= 3.64 C = .12 df = 2	X^2 = 7.88 C = .20 df = 2	X^2 =35.75* C = .30 df = 2	X^2 =24.03 C = .30 df = 2	Marital deferment was found to be associated with expectations for higher levels of education for white males and females and for black females.
Marital Deferment by Occupational Expectations in 1972	X^2 = 8.6[illegible] C = .19 df = 2	[illegible] = 3.51 [illegible] = .26 df = 4	X^2 =17.61* C = .22 df = 2	X^2 =32.72 C = .35 df = 4	Relationships between marital deferment and high level occupational expectations were found to be significant for all race and sex categories.

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*Significant at .05 level

Educational Preferences, 1972

Early adult aspirations and expectations were used to examine educational preferences in 1972. Whites, both males and females, were the only group to show a significant relationship between marital deferment and early adult educational aspirations. For early adult expectations, significant relationships were found for white males and females and for black females.

In general, it was found that the longer white participants deferred marriage, the more they tended to aspire to college educations. For example, college aspirations for white males increased from 57 percent for those who married within the first two years after high school, to 75 percent for those who were unmarried in 1972. For white females, college aspirations increased from 49 percent for those who married earlier to 72 percent for those who were unmarried.

Over 60 percent of each race and sex category had aspirations for college educations. This is particularly interesting because it represents a slight increase in the college aspirations of participants from 1968 to 1972.

Analysis of educational expectations showed that the longer white males, white females and black females deferred marriage the more they tended to expect college educations. For example, 21 percent of the black women who were married within the first two years after high school expected to attain college educations. The percentage increased to 45 percent for those who were unmarried in 1972. For white males the proportion of respondents who expected college educations increased from 21 percent for those who married earliest, to 63 percent for those who were unmarried in 1972. The proportion increased from 22 to 56 percent for white females.

Educational expectations were rather low, especially in comparison with early adult aspirations. Fifty percent of the white males expected college educations. All other groups had approximately 40 percent of the people expecting college educations. This suggests that, even though the majority of the respondents in this sample desire college educations, many of them do not perceive the opportunity to fulfill their desires.

Occupational Preferences, 1972

As was done previously, early adult aspirations and expectations are used to analyze occupational preferences in 1972. White males and females were the only groups to exhibit a significant relationship between marriage deferment and early adult occupational aspirations while all sex and race categories exhibited significant relationships concerning expectations.

Overall, the longer whites deferred marriage, the more they tended to aspire to occupations with SEI scores over forty-five. The percentage of white men who aspired to occupations with scores over forty-five increased from 49 for those who married within two years after high school graduation to 75 percent for those who were unmarried in 1972. For white females, aspirations for higher scored occupations increased from 70 percent for those who married earliest to 94 percent for those who deferred marriage until after 1972.

Occupational aspirations for all race and sex categories were rather high. Between 54 and 80 percent of each category expected to attain occupations with SEI scores over forty-five. For both races, more females aspired to higher-scored occupations than males. Once again, few black or white females aspired to the occupation of "housewife".

Analysis of educational expectations indicates that the longer respondents deferred marriage the higher were their occupational expectations. For example, expectations for occupations with scores over forty-five increased from 26 percent for black males who married earliest to 42 percent for those who were unmarried in 1972. Black females had a 24 percent increase, white males had a 29 percent increase and white females experienced a 39 percent increase in expectations from those who married earlier to those who deferred marriage until after 1972.

The data showed a significant decline in the percentage of respondents who aspired to higher-scored occupations versus the percentage who expected to attain such occupations. Between 18 and 39 percent of each race and sex category expected to attain higher-scored occupations. More whites exhibited expectations for higher-scored occupations and a smaller percentage of black males than black females expected to attain occupations with scores over forty-five.

In this portion of the analysis four variables were utilized to investigate consequences of marital deferment on early adult educational and occupational attitudes. For whites in the sample, marital deferment proved to have a significant relationship on all of the eight relationships. For blacks, no aspirational attitude was significant, but three of the four expectation attitudes were significant. It was also found that relationships concerning expectations were stronger than they were for aspirations. These findings indicate two important patterns. First, for white respondents, early adult achievement attitudes appear to be closely tied to the marital deferment decision. This does not seem to be the case for blacks. Attitudes of blacks concerning educational and occupational aspirations appear to be independent of marital deferment but expectation attitudes appear to be influenced by marital deferment. Secondly, since expectations had a stronger relationship with marital deferment for all groups, it appears that, as the panel participants began to mature, marital deferment had more of an influence on expectations.

Early Adult Attainments as Consequences

Educational and occupational attainments were used to determine their consequences of marital deferment. Table 4 summarizes the comparisons.

Educational Attainments, 1972

Relationships between marital deferment and early adult educational attainments were found to be significant for all race and sex categories. Across all categories, the longer a person deferred marriage, the higher the percentage of people attaining college educations. For example, only 5 percent of the black males who married within two years after high school attained college educations as of 1972, while 20 percent of those who were unmarried in 1972 attained college educations. College attainment for black females increased from 6 percent for those who married earliest to 27 percent for those who were unmarried. The proportion of white males increased from 12 to 43 percent while white females had an increase from 12 to 47 percent.

More whites attained college educations than blacks, but overall, the attainments were rather low. The proportion of people who attained college educations ranged from a low of 16 percent for black males to a high of 33 percent for white males.

TABLE 4: Contingency Coefficients Between Early Adult Status Attainment and Marital Deferment

	BLACK		WHITE		Comments
	Male	Female	Male	Female	
Marital Deferment by Educational Attainment in 1972	$X^2 = 6.54$* C = .16 df = 2	$X^2 = 9.85$* C = .22 df = 2	$X^2 = 23.29$* C = .25 df = 2	$X^2 = 28.17$* C = .32 df = 2	All relationships between marital deferment and educational attainment were significant.
Marital Deferment by Occupational Attainment in 1972	$X^2 = 14.04$* C = .23 df = 6	$X^2 = 42.09$* C = .42 df = 8	$X^2 = 40.92$* C = .32 df = 6	$X^2 = 73.58$* C = .49 df = 8	All relationships between marital deferment and early adult occupational attainments were significant.

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*Significant at .05 level

Occupational Attainment, 1972

Relationships for marital deferment and occupational attainments were significant for all race and sex categories. Respondents who were students in 1972 had a strong tendency to be unmarried. For example, only 5 percent of the black males who married within two years after high school were students while 17 percent of those who were unmarried were students. For white females, 4 percent of those who married earliest were students, while 38 percent of those were unmarried were students. The same pattern was exhibited by black females and white males. It was noted that more whites were students. Twenty-seven percent of the white males and 17 percent of the white females were students, while 12 percent of the black males and 16 percent of the black females were students.

Overall, occupational attainments were low. Only 5 percent of the black males and 6 percent of the black females attained occupations with SEI scores over forty-five. The percentage of whites who attained higher-scored occupations was slightly higher; 15 percent of the males and 31 percent of the females. These low attainments can be explained partly by the fact that respondents were 21 to 23 years old at this time, which would mean they had not had sufficient time to acquire high status occupations.

Analysis concerning consequences of marital deferment on early adult educational and occupational attainments provided many findings. For the first time, all relationships were significant. This indicates that, in most cases, marriage deferment and attainments are linked. Because of the relatively young age of the panel, it was difficult to draw conclusions concerning high achievement patterns; but it was found that low educational and occupational achievement was associated with early marriage.

The main achievement input for occupational attainment was "student". There was a strong tendency for respondents who were students in 1972 to be unmarried. This is important because many studies have linked education with occupational attainment (Blau and Duncan, 1967; Sewell and Shah, 1968). Also, because data concerning occupational attainment does not allow enough time for upward mobility patterns to emerge, it is hard to establish an occupational attainment pattern other than for the category of "student", but data on educational attainment shows clearly that marriage deferment enhances educational attainment.

CONCLUSIONS

The purpose of this research was to examine the effect of marriage deferment, within the educational and occupational achievement process, on young black and white youth. This was done by investigating, through the use of contingency tables, relationships that exist during various phases of a person's life. The analysis was organized in three parts. First, adolescent attitudes concerning education and occupations were investigated as antecedents to marital deferment. Second, the relationship between marital deferment and newly-formed educational and occupational attitudes were studied. Lastly, associations between marriage deferment and educational and occupational attainments were analyzed.

An important and somewhat unexpected finding of this study was that relationships between achievement attitudes and marriage deferment were different for whites than they were for blacks. During the life cycle phases of adolescence and early adulthood, white respondents, for the most part, exhibited significant relationships between achievement attitudes, actual attainments and marriage deferment. Black respondents, on the other hand, did not show any significant relationships during adolescence between achievement attitudes and marriage deferment. In early adulthood, aspirations of blacks still did not appear to be associated with marital deferment but expectations and attainments did. From these findings we can conclude that the matrix of attitudes formed during adolescence and early adulthood concerning educations and occupations are interrelated with marital deferment for whites. For blacks, the interrelationship does not appear until early adulthood.

For whites, early marriage had a depressant effect on adolescent and early adult aspirations and expectations, both educationally and occupationally. At the same time, adolescent and early adult attitudes for higher levels of education and higher status occupations were associated with later marriage. It was also found that higher levels of early adult attainments for whites, as well as continued education, were associated with later marriage. The behavior pattern of white panel participants is supportive of previous status attainment research. For example, Call and Otto (1977) found in a study of males that where there were early marriages there were low aspirations, and, conversely, when men were successful academically they were more likely to defer marriage. A study conducted by Treiman and Terrell (1975) pointed out that women who deferred marriage had higher expectations and were better educated.

As has been stated, the relationship between marital deferment and achievement attitudes did not appear until early adulthood for blacks and then for expectations and attainments only. Although the behavior of blacks is inconsistent with that reported in most studies, there is a plausible explanation found in the literature. The "success-theme" that exists in American society has been discussed by researchers (Merton, 1968; Williams, 1951). Most people agree that American society emphasizes achievement, especially occupational achievement. Because of this, American youth accept and desire a common, societal value of success. Cosby (1974) points out that we can assume, heuristically, that young people fall into one of two groupings concerning occupational attainment possibilities: (1) those who have a high probability of achieving high status occupations, and (2) those who have a low probability of achieving high status occupations. When the concept of the "success-theme" is combined with the concept of two groupings of occupational attainment probabilities it appears that those youth who ascribe to societies evaluation of occupations will have achievement attitudes that are unrealistic.

Cosby (1974) carries this line of thinking a step further. He hypothesizes that choices made by those people who have a low probability of achieving high status occupations may have little direct relationship on their behavior. Instead he sees these attitudes as "a psychological crutch, a compensating influence for socially defined behavior in a success-oriented society" (Cosby, 1974). In other words, those people who will probably have low achievements adjust to their status within society by projecting their success into the future. They can, therefore, remain social psychologically within the "success ethos" even if their behavior and attainments are generally inconsistent. To do otherwise would admit failure and be of high psychological cost.

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PRECONDITIONS FOR GROWTH AND THE GROWTH ORIENTATION AMONG PUBLIC OFFICIALS

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Theories in the area of economic growth and "political economy of place" suggest local elites, landowners, and businessmen adhere to a growth ideology (Molotch, 1976). Such an ideology indicates a favorable orientation toward industrial, commercial, and population growth in the community. Government provides the "arena" for decision-making relative to growth, including competition for the preconditions of growth. Preconditions influenced by local government decisions included subsidies, tax rates, transportation, facilities, services and others. Therefore, those with an interest in growth, or their representatives, are drawn into local politics. Of course, such theories have implied that, in some instances, a city may seek not to grow, or growth may not be a relevant local issue (Molotch, 1976; Logan, 1976, 1978). However, nongrowth situations have not been systematically examined in past research. While Logan (1976) indirectly considers small towns in the context of suburbs, nonmetropolitan cities have been largely ignored in theories relevant to growth.

This study examines the growth orientation of city officials of various sized cities in both metropolitan and nonmetropolitan counties. The purpose of the study is to test existing theories relative to city officials' growth orientations for two particular types of cities, suburbs of metropolitan areas and nonmetropolitan cities.

Theories of Growth

Growth is the over-riding concern of officials in nearly any given locality (Molotch, 1976:310). Land is the key ingredient for stimulating this interest in growth, particularly land used by business and industry.

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Landowners, businessmen, and industrialists become the key growth proponents within a city, being prime recipients of growth benefits.

Localities compete with each other for the preconditions to enhance growth potential. Growth decisions are generally made by various levels of government. Those most interested in growth (elites, landowners, businessmen), or their representatives, are drawn into local politics in order to influence growth decisions. Their presence in the political arena influences or determines growth orientation of local officials, and this orientation becomes the driving force of local government (Molotch, 1976).

Molotch (1976) briefly discusses dysfunctions of growth, particularly the cost of growth to indigenous residents. He indicates that the tendency toward nongrowth may be related to size of city and rate of growth, at least among middle-size cities. However, no analysis of these nongrowth situations is made, nor are smaller cities examined. Although it is stated that the "economic essence of virtually any given locality is growth" (Molotch, 1976:310), those cities included in his analysis are larger metropolitan areas (SMSA's).

Logan (1976) addresses growth in terms of suburban areas. Growth here refers to population, industrial, and commercial growth. Within suburbia, differential growth and nongrowth patterns occur based upon certain characteristics of the suburbs. Three types of suburbs are delineated, each lending itself to a different type of growth: 1) employing, 2) residential, 3) balanced (a mixture of employment and residential functions). Prior to 1950, growth was primarily residential. Later growth has become more related to industrialization of the suburbs. Industrial growth is related to several characteristics of suburbs such as a low tax rate, a high level of public services, good transportation access, available land, suitable topography, and a favorable social and political situation (Logan, 1976:337). It has been proposed that suburbs with these characteristics will continue to attract industry and grow.

Similarly to Molotch, Logan (1976) identifies government as the major influence for policies and decisions which affect community growth. Rather than local elites, Logan identifies three interest groups which may influence government in growth decisions: real estate developers, businessmen, and local residents. Real estate developers and big business have the most to gain from industrial or commercial growth. Some economic benefits accrue to residents of communities experiencing these types of growth; however, there are also economic and social costs to the residents. Depending upon community characteristics and residential make-up, economic growth may be supported, resisted, or create a political cleavage among interest groups. Economic growth is generally successfully resisted only in those suburbs in which residents can literally "afford" to resist (e.g., the exclusive residential suburbs). Such communities are often more interested in preserving community life-style than growing economically. On the other hand, suburban residents are less dependent upon growth because they may take advantage of the "spill-out" amenities provided by nearby metropolitan centers (Berry and Kasarda, 1977). It is possible in such instances for a nongrowth orientation to become dominant within suburbs.

Molotch (1976) suggested that population is a good indicator of all types of growth, and that a clear indication of success at growth is a rising population. Thus, it is hypothesized that: (Hyp. 1) officials of larger cities will be more growth oriented than those of smaller cities; and (Hyp. 2) public officials in faster growing cities will be more growth oriented than officials in cities with stable or declining populations.

Nonmetropolitan cities are not discussed in existing theory, the concentration is upon large metropolitan areas and suburbs. The "suburban spill-in" effect allows suburban residents to gain growth amenities of the larger metropolitan center without having to grow themselves (Berry and Kasarda, 1977). Here we will compare suburbs in metropolitan counties to nonmetropolitan cities and towns. It is hypothesized that (Hyp. 3) officials of metropolitan suburbs will be more nongrowth oriented than those in rural cities.

Logan (1976) indicates that within suburbs, those more successful in resisting growth are the more exclusive and affluent residential suburbs. Expanding this notion to all cities, it is hypothesized that (Hyp. 4) the higher the per capita income of a city, the more nongrowth oriented will be the public officials.

Procedures

Data were gathered during the summer of 1975 through extensive interviews with public officials (mayors, city attorneys, councilpersons, etc.) in 325 of the 403 cities in Kentucky. This provides usable data on 81 percent of all incorporated places in the state. City officials which could not be contacted or did not wish to participate tended to be from very small cities. Only cities 20,000 or less in population were included in the following analysis. Comparisons with larger cities will be explored in a subsequent paper. Funds for interviewing city officials were provided by the Commonwealth of Kentucky under the auspices of the Government Law Center. Funds for processing and analyzing the data were provided by both the Kentucky Agricultural Experiment Station and Title V of the Rural Development Act of 1972.

The variables chosen for analysis were 1) attitude toward growth, 2) metropolitan or nonmetropolitan location, 3) population size, 4) population change, and 5) per capita city income. Metropolitan cities were those included within the boundaries of an SMSA; nonmetropolitan cities were those not located in an SMSA. Population size was based upon the 1975 Census estimate for the city. Population change was defined as the percent population change from 1970-1975. The categories for population change were: decline, less than -5%; stable, -5% to +4%; growth, +5% to 19%; and rapid growth, 20% and over. State population change for this time period was approximately +5 percent. Per capita income was taken from the Census city estimates for 1975. Three categories of approximately equal frequency were determined: low, less than $3,400; medium, $3,401 to $4,340; and high, $4,341 and over.

The dependent variable was measured by a two item scale, which dealt with two types of economic growth as discussed in the theory section. The questions included were: Do you think further growth of major industries within your community is essential to the stability or improvement of your community? Do you think further growth of small businesses is essential to the stability or improvement of your community?. Responses to the growth questions were no or yes, which resulted in a three point scale of the growth orientation. Two "yeses" (score of 4) were defined as growth oriented, two "no's" (score of 2) nongrowth oriented.

Findings

The hypothesis regarding the growth orientation of suburbs in metropolitan counties and nonmetropolitan city officials was supported; officials of nonmetropolitan cities were more growth oriented than officials of metropolitan suburbs. Regardless of population size, nonmetropolitan officials were more growth oriented than suburban. The same held true for all categories of population change except declining cities, and all categories of per capita city income except low per capita incomes (Tables 1, 2, and 3).

Because of the effect of suburban or nonmetro location, population size, population change, and per capita city income were analyzed for both the metropolitan and nonmetropolitan designations. The hypothesis of population size was supported; within both metropolitan suburban and nonmetropolitan cities, officials of larger cities tended to be more growth oriented than officials of smaller cities (Table 1).

The hypothesis of population change was not supported since there were no significant differences in growth/nongrowth orientation among officials from cities of different change categories. Findings were not significant for metropolitan and nonmetropolitan cities (Table 2). Partial support was provided for the hypothesis concerning per capita city income. For metropolitan suburbs, as hypothesized, the higher the per capita income of the city, the more nongrowth oriented the officials tended to be. For nonmetropolitan cities, however, no significant differences in growth/nongrowth orientation was present among per capita income categories (Table 3).

Discussion

Partial support was given the above growth theories when nonmetropolitan as well as metropolitan suburbs and nongrowth as well as growth situations were considered. A definite residential suburban tendency for nongrowth is indicated since: metropolitan officials are more nongrowth oriented than nonmetropolitan officials; officials of smaller cities tend to be more nongrowth oriented; and officials of cities with higher per capita incomes are more nongrowth oriented than officials of lower income cities within the metropolitan suburbs. This suggests that the suburban spill-in effect allows suburbs to reap the advantages of growth from the nearby urban center, without bearing the costs themselves.

The larger metropolitan city, then, may be more growth oriented to fulfill the needs of its local service area. The service area, however, includes not only the city residents, but also residents of surrounding suburbs who rely on the metropolitan center for employment and numerous services. Rural (nonmetropolitan) city officials are likely to be more growth oriented for different reasons. Having no nearby metropolitan center, the burden of growth to meet local needs may be more likely placed upon the local area. In terms of the rural population turnaround, rural officials may perceive the necessity of industrial and commercial growth to meet employment and service needs of an expanded population.

It appears that Molotch (1976) overestimated the prevalence of the growth orientation among local officials. Nongrowth orientations were present among officials of all types of communities in this analysis. The emphasis placed by Molotch upon population growth (population change) was not supported by this study. The percentage population change had no significant effect upon the growth/nongrowth orientations of the city officials.

Logan's (1976) conceptualization of growth within the suburbs was generally supported by the study. However, the suburban spill-in effect was found to have greater influence upon Kentucky cities than Logan would have indicated. Metropolitan cities, which were primarily suburbs in this sample, were relatively nongrowth oriented for most types of communities.

TABLE 1: GROWTH SCALE MEANS FOR SMALL CITIES BY METRO-NONMETRO (SMSA, NON-SMSA) AND POPULATION SIZE 1975 (n's in parentheses)

Population	Metro	Nonmetro	t Value
less than 500 people	2.52 (23)	3.42 (46)	5.51*
500 to 999	2.50 (18)	3.55 (35)	4.60*
1,000 to 2,499	3.00 (25)	3.75 (43)	4.14*
2,500 to 20,000	3.15 (20)	3.74 (41)	3.16*
ANOVA F =	4.181*	2.967*	

*$p < .05$

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TABLE 2: GROWTH SCALE MEANS FOR SMALL CITIES BY METRO-NONMETRO AND POPULATION CHANGE 1970-1975 (n's in parentheses)

Population Change	Metro	Nonmetro	t Value
Decline (<-5%)	3.00 (9)	3.54 (28)	1.90
Stable (-5% to +4%)	2.84 (25)	3.56 (79)	4.42*
Growth (+5% to +19%)	2.70 (20)	3.67 (42)	4.55*
Rapid Growth (≥+20%)	2.78 (32)	3.81 (16)	6.69*
ANOVA F =	0.327	1.005	

*$p < .05$

TABLE 3: GROWTH SCALE MEANS FOR SMALL CITIES BY METRO-NONMETRO AND PER CAPITA CITY INCOME 1975
(n's in parentheses)

Per Capita City Income	Metro	Nonmetro	t Value
Low (less than $3,400)	3.38 (13)	3.66 (79)	1.51
Medium ($3,401 to $4,340)	2.95 (20)	3.58 (71)	3.68*
High ($4,341 and over)	2.61 (52)	3.47 (15)	4.01*
ANOVA F =	6.153*	0.728	

*$p < .05$

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THE EFFECT OF COMMUNITY ATTACHMENT ON POST-SECONDARY EDUCATIONAL CHOICES AND OCCUPATIONAL ASPIRATIONS

by

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Durkheim maintained that spatial, temporal and other thought processes are social in origin. This study concerns the definitions of rurally isolated youth in relation to the perception of the spatial boundaries of their occupational and educational opportunities. Specifically the study focuses on an Appalachian area in Upper East Tennessee concerning the way the rurally isolated youth define the boundries of their educational and occupational world at a critical stage in their life cycle, the post secondary educational years.

Numerous incidences have been observed in which the youth of this area have chosen to remain in the local area in which educational and occupational opportunities were limited rather than leave their home community to avail themselves of increased opportunities.

An important concept emerged in the study of this situation which could play an important role in defining the boundaries of the worlds of these young people. It is the concept of community attachment.

Kasarda and Janowitz[1] examine two models of community attachment in mass society. Their study identified two major aspects of community attachment, community attitudes and sentiments, and local social bonds.

Community attitudes and sentiments involved such variables as (a) sense of community, an area you feel you belong to and where you "feel at home," (b) interest in community, how interested are you in what goes on in your home area and (c) sorry to leave, how sorry or pleased you would be to leave your home area.

Local social bonds are concerned with such variables as friendship and kinship networks and participation in formal and informal organizations.

Kasarda and Janowitz's first model which they labeled the linear model is based on the work of Toennies and Wirth which treats increasing population, size and density as key independent variables influencing local community attachments.

Their alternative approach which they labeled the systemic model is derived from the works of W. I. Thomas, Park, and Burgess.

The linear model was so called because linear increases in population and density was expected to be the exogenous factors influencing the patterns of social behavior. The effects of urbanization and industrialization alter the characteristics of society from that based on community attachments to an associational basis. Wirth saw numbers of population, density of settlement, heterogeneity of inhabitants, and group life, as the important variables. This, Wirth believed, would move primary relationships to secondary relationships, weaken bonds of kinship and make the local community less important.

The systemic model of community is seen as a structure that has ecological, institutional and normative dimensions. The local community is seen as a complex of friendship and kinship networks and formal and informal associational ties rooted in family life and ongoing socialization processes. "At the same time it is fashioned by

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a large scale institution of mass society. Indeed, it is a generic structure of mass society whose form, content and effectiveness vary widely and whose defects and disarticulations reflect the social problems of the contemporary period."[2]

In this model the social fabric could be identified by focusing on local social networks and consequently eliminating effects that are directly linked to the occupational system. It is the geographic based social relations that result in the social fabric of human communities, whether they are neighborhoods, local communities or metropolitan areas. The expectations of Janowitz and Kasarda's study derived from a rejection of linear model was that population size and density would not result in significant differences in community participation and attachment. Under the linear model community participation and attachments would be attenuated with larger population size and population density. Under the systemic model they expected to find length of residence to be a strong independent variable influencing the two dimensions of community attitudes and sentiments and social bonds.

The conclusions Kasarda and Janowitz reached by comparing the two models was that "length of residence plays a far more important role in assimilation into the social fabric of local communities than does population, size, density, social class or stage in life cycle." It is pointed out that length of residence is not to be thought of as primarily an individualistic or voluntaristic act. "The idea of the social construction of communities involves not only the impact of large scale institutional factors but the consequences of cultural traditions and practices and the response of political institutions and associations based in the local community."[3]

Relating the systemic model of community attachment to educational choices and occupational aspirations it would be expected that in a rurally isolated community the longer the residence in that community the more limited would be the educational choices and the smaller would be the world of occupational opportunities.

There are numerous studies pertaining to levels of occupational aspirations and levels of educational aspirations. Haller, et al[4] in a rather extensive analysis of a large number of American high school students concluded that level of occupational aspirations is a general dimension composed of idealistic-realistic goal-region aspects.

It would be expected therefore, that levels of occupational aspirations and levels of educational expectations would be affected by community attachment to a degree within a particular geographic region or area as defined by the spatial concepts of the youth.

It would also be expected that those youth who have roots in the community (length of residence of themselves as well as the number of generations their family has lived in the community) would have strong community attachments which would effect the boundries of their educational and occupational dimension. It would also be logical to expect the idealized boundries of their occupational aspirations and educational expectations to extend beyond the realistic boundries. This is to say that educational choices and occupational goals would be limited not just in scope, but actually limited to a geographic range from their home community as a result of a community attachment.

This study uses the number of years the respondent has lived in the community as well as the number of generations the family has lived in the home community of the respondents as main variables related to community attachment.

For a measure of the geographic range, the respondents were asked the number of miles from their home community they would move if their realistic occupation was not available in their home community and the same question for their idealistic occupation.

To measure the geographic range of their educational choices, the respondents were asked to indicate the number of miles they would be willing to move to participate in a full scholarship at a top quality school for training in the area of their idealistic occupation and the same question in the area of their realistic occupation.

Measures of community attitude and sentiment, as well as general demographic information, were also collected in this study. These data were collected from ninety-seven respondents in four lower division sociology classes in the winter quarter of 1979 at East Tennessee State University.

Simple descriptive analysis of the data is presented in Table 1, concerning the geogrpahic range respondents would travel to avail themselves of idealistic and realistic occupational and educational opportunities.

The table shows that from one percent to 12.4 percent of the respondents said they would not go beyond fifty miles to participate in their idealistic-realistic educational and occupational opportunities. On the other extreme 58.8 to 72.2 percent of the respondents indicated they would go anywhere in the United States to participate in their idealistic-realistic occupational and educational opportunities. The responses varied in their geographic range as expected.

To test the effect that length of residence and number of generations would have on the distance respondents would move for idealistic-realistic educational and occupational opportunities correlation coefficients were calculated as shown in Table 2.

SES, size, and place are also shown in Table 2 as independent variables and sense of community, interest in community, and sorry to leave are included as dependent variables in the table of correlation coefficients.

The major conclusions from the analysis of these data are that neither length of residence of the respondent nor number of generations his family has lived in the community had a great effect on the distance the respondents are willing to move for occupational and educational opportunities. The correlation coefficients for these two variables are weak and the amount of variance explained is very small. Neither did length of residence nor number of generations show any significant effect on the community attitude and sentiment variables.

There certainly was little support for the systemic model in this data, in fact, SES and size, which were variables in the linear model, showed slightly higher correlation coefficients.

Footnotes

[1] John D. Kasarda and Morris Janowitz, "Community Attachement in Mass Society," American Sociological Review, XXXIX(June, 1974)p.328-29.

[2] Ibid.

[3] Ibid.

[4] Archibald O. Haller, Et al., "Level of Occupational Aspiration," American Sociological Review, XXXIX (February, 1974), pp. 113-121.

Table 1.--The geographic range respondents would travel to avail themselves of idealistic and realistic occupational and educational opportunities

Miles from Home Community	OCCUPATION Idealistic	Realistic	EDUCATION Idealistic	Realistic
Less than 50	3.1%	12.4%	1.0%	5.2%
50-100	13.4	13.4	4.1	5.2
101-300	12.4	11.3	15.5	15.5
301-600	5.2	3.1	7.2	8.2
Anywhere in U.S.	66.0	58.8	72.2	62.9
No answer		1.0		3.0
N = 97	100.0	100.0	100.0	100.0

Table 2.--Correlation coefficient between major variables

	Length Residence	Number of Generations	SES	Size	Place
Farthest move to work in ideal occupation	.11	.10	.19	.16	.10
Farthest move to work in realistic occupation	.14	.02	.10	.14	.07
Farthest go to school for ideal occupation	.23	.14	.36	.13	.10
Farthest go to school in realistic occupation	.14	.02	.10	.28	.07
Sense of community	.17	.006	.03	.05	.01
Interest in community	.11	.04	.008	.05	.07
Sorry to leave	.09	.05	.009	.17	.10

Session 12

Occupational Prestige

"Southern Adolescents' Future Husbands' Occupational Aspirations and Attainments". Ella T. Keller and Wolfgang Frese, Mississippi State University.

"Types of Farms, Workers' Values, and Occupational Opportunity Structures". C. M. Coughenour, University of Kentucky.

Southern Adolescents' Future Husbands' Occupational Aspirations and Attainments

Ella T. Keller
Wolfgang Frese

Mississippi State University

ABSTRACT

It is generally assumed that marriage provides an important avenue of social mobility for women. This analysis assess a causal model developed from the literature on marriage mobility for a sample of nonmetropolitan Southern women. Specifically, the analysis examines the impact of social origin variables, high school aspirations, as well as early educational and marital achievement on the occupational attainment of the respondent's husband. Of particular interest are the relative effects of aspirational (especially future spouse's occupational aspirations) and environmental (social origin, educational attainment and year married) variables on a female's spouse's occupational attainment. The results point to an environmental (educational milieu) rather than status aspiration (via future husband) explanation of marriage patterns. The analysis reveals important black-white subgroup differences.

Due to space limitations only the abstract is included in these Proceedings, for a copy of the paper please write the authors at the following address:

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TYPES OF FARMS, WORKERS' VALUES, AND OCCUPATIONAL OPPORTUNITY STRUCTURES[1]

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Rural Sociologists have developed renewed interest in the structure of agriculture, and there is even some evidence that an increasing, though still small, number have been moved to engage in relevant research. One indication of this is the establishment by SAES Directors of an Area of Work Committee on Agricultural Structure and Commitment to Farming. The committee's purpose is the development of a regional research project proposal, and initial discussions of the 13 or so members of this committee, most of whom are rural sociologists, have resulted in preliminary decisions to examine both the causal factors of agricultural structures and its implications for local communities.

An essential issue in such an investigation is the selection of the form of agriculture structure to be investigated. This is not a simple task as there are many structural dimensions in common use. Clearly, the selection will depend on the purpose of investigation, i.e., the questions one hopes to answer or problems one hopes to help solve. As will be easily recognized in today's social research climate both the researcher's theoretical perspectives and value priorities are thereby involved in the final decision. This situation is germane, not merely for the Area of Work Committee, but also for the focus of this paper to which it is related, and the problem can be illustrated by consideration of several alternatives.

In Ball and Heady's (1972) book on the Size, Structure and Future of Farms the analysis of growth trends led Orazen to conclude that American farms had become increasingly dualistic in scale, divided into a large number of relatively small, limited resource, less than optimally efficient, low income farms—most of which are part-time farms—a group of resource efficient farms, and a smaller group of larger than optimum size, high productive and income farms. Others in the same book discussed the economic status of family farms (Nikolitch), family corporations (Harl), industrial farms (Moore and Dean), and nonfamily corporations (Ottoson, and Vollmar).

What can rural sociologists do that would be of present and future benefit and to whom?

Distributional and quality of life issues raise general value considerations that merit consideration in this regard. The distributional issue has at least two forms. One is regional. The South historically has had a disproportionate share of the nation's farms and at the last Agricultural Census had 39 percent of all farms. Moreover, a disproportionate share (52 percent) of the small farms—those with less than $10,000 in farm sales—were in the South. Thus, it seems likely that the greatest loss off farms during the next two decades will occur in the South if present trends continue. If there is cause for concern about the fate of small farms, Southern rural sociologists have, thereby, a greater cause for concern than those elsewhere.

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[1] This paper (79-14-38) is a contribution of Agricultural Experiment Station, University of Kentucky and is published with permission of the Director.

Although national concern with the problem of poverty has diminished, it still exists and is more prevalent in the South, and especially in nonmetropolitan areas, than elsewhere (Hines, Brown, Zimmer 1975). Reducing constraints to the increased profitability of small farms would be beneficial, and although agricultural economists have much to say about how and to what extent this might be accomplished, rural sociologists may be able to help as well for policy issues are not the exclusive domain even of policy minded economists. The role of human and organizational factors in farming and marketing provide vantage points for rural sociologists to make useful contributions to this problem. However, I want to briefly emphasize three other considerations which merit sociological investigation.

The first stems from the fact that family income from farming is inversely related to nonfarm income (Larson 1976). Off-farm income accounted for "57.5 percent of the total net income reported by farm families in 1970," and was the major source for farm families with total family income of less than $5,000. The number of farmers working 100 or more days off the farm has remained approximately stable since 1950, and the proportion part-time has more than doubled. In 1974, nearly one-half of all farmers reported that their principal occupation was other than farming. The obvious point is that many small farms have survived, despite their economic deficiencies, and this is primarily related, not to farming per se, but the involvement of farmers and members of their families in nonfarm activities. (Farm subsidies and Social Security made up only about 21 percent of the total nonfarm income.) This serves to emphasize the point made by Madden and Partenheimer (1972) and Marshall and Thompson (1976) that efforts to understand the economic status and prospects of families who farm must be made from the perspective of the family as a farm commodity and labor services generating firm. The structures and processes that link families with nonfarm institutions and work organizations thus must have equal billing with those of agriculture.

The initial issue then that researchers must resolve is whether to focus on the structure of farms or the structure(s) affecting the well-being of those who farm. Even if one is primarily interested in the structure of farms the nonfarm sector can not be avoided owing to its impact on the persistence of small farms. Moreover, the traditional interests of sociologists in people and the quality of their lives tips the balance, at least for me, in favor of the broader focus of concern with family well-being.

Such a choice, of course, does not permit avoidance of the structure of farms, and to the extent that it is the focus of interest Breimyer (1977) and Rodefeld (1978) have suggested useful typologies of farms for investigation. For a study of the well-being of family goods-and-services firms, however, such typologies are not very satisfactory as they leave the nonfarm component out of consideration. A typology that brings both the farm commodity production and the services providing aspects of family firms into consideration is shown in Figure 1. It is based on the idea that with respect to the goals of the firm a distinction can be made between the primary goal of producing farm products for market, i.e., uses external to the family firm, or for non-market use, i.e., use by the family itself. For services, the firm's primary goal may be to provide services externally through the labor market, or it may be to employ the labor services primarily in the farm firm. These distinctions provide the basis for a four-fold classification of family firms: (1) nonfarm labor with the farm as a hobby and subsistence supporting, (2) "part-time" commercial, (3) subsistence or self-sustaining ("abnormal") farm firms, and (4) farm product, commerical firms.

FIGURE 1. TYPOLOGY OF FAMILY FARM PRODUCT AND LABOR SERVICE FIRMS

Primary Outlet for Farm Products

Primary Outlet for Labor Services	Internal Use	External (Market)
External Use (Market)	I Typical "hobby" farm with farm operators and/or other family members employed primarily off the farm and farm products primarily serving "psychic" or subsistence needs.	II Typical commercial part-time commercial farm with operator and/or family members employed in nonfarm job(s).
Internal Use	III Typical self-sufficing communal or family farm with farm products and labor services providing the principal basis of subsistence.	IV Typical commercial family farm with operator and family members involved full-time in farm production.

The typology has the advantage of including most recognized types of farms in combination with the use made of human services. Of greater importance, it distinguishes family firms on the basis of overall purpose, or "domain" in Thompson's (1967) terminology of organizational analysis. The domain is the "Claim" the organization advances for its function in the larger system of organizational and institutional relationships. This focuses on the "task environment" which includes the suppliers of essential inputs, markets for products and services, competitors, and regulatory groups as well as the more generalized aspects of the institutional and other environmental factors, such as science and technology, "business climate," demographic structures and trends, and the like. Questions of domain consensus, the structures of the environment, power and dependence relationships and the firm's strategies for managing dependence become relevant considerations. These are problems with which management must deal, so that the consideration of domain and task environment lead backward to concern with the decision making structure and process of the firm and its effectiveness in dealing with resource allocation and mobilization, and in coping with internal tension.

As a final caveat, although the typology has evident utility in a variety of respects, it may be more useful for short-run than long-run analysis owing to the changes which firms make in their domains. To some extent, however, this limitation can be turned to an advantage as the typology serves as a device for charting directions and flows among major types of family firms.

Values and motives—the consideration of organization domains and strategies elicits a consideration of values. Family firms—farm or other kinds—are distinguished by the close binding of individual and family value-orientations. Residence and life style are closely linked with occupational interests as indicated by numerous studies of farmers and other occupational groups. Success in terms of profitability and growth of the farm firm and a middle-class life style more and more characterize those engaged in full-time farming. However, many others are engaged in farming with different complexes of value orientations. Fuguitt and Zuiches (1975), DeJong and Sell (1977), and Blackwood and Carpenter (1978) among others indicate that preferences for nonmetropolitan living have been an important aspect of life style priorities involved in the recent rural-urban migration turn around. In my study of part-time commercial farmers in Kentucky, attachments to both farming and nonfarm occupations are strong and undergirded by important noneconomic as well as economic values (Coughenour and Gabbard 1977). For part-time farmers, farm and nonfarm occupations are more complementary than conflicting, and the income streams, of course, are supplementary. Both occupational and income interests thus bring them to dual career commitments.

Studies by Fuller and Mage (1976) as well as general observation also suggests that "hobby" and part-time commercial farmers differ in their value-orientations and motivations although direct information as to the dimensions of differentiation is lacking. Finally, studies of groups that have attempted to establish rural communes within the past decade (Kanter 1973; Fairfield 1972; Dorner 1977) as well as such historical forms as the generalized and self-sufficing farm leave little doubt that they are distinguished in life style and value orientations from the other types of farming units identified in Figure 1.

Though such studies are suggestive, definitive measurement of the value complexes and sources and relative importance of farm and nonfarm rewards that distinguish relatively stable or enduring types of goods-and-services firms is lacking. If American agriculture could be simply characterized as a shift from traditional small scale agrarianism to a modern, large scale commerical farming, there would be little importance in studying various types except to ease the adjustment process. But, this view of the historical process is overly simplistic as those engaged in farming increasingly represent a diversity of types, which requires us to examine the institutional factors that sustain each type.

Occupational opportunity-constraint structures--resource dependence theory of social organization-environment relationships (Aldrich and Pfeffer 1976) stresses the capability of the organization to select and modify its environment. As Starbuck (1976) points out: "To no small degree, an organization's environment is an arbitrary invention of the organization itself. The organization selects the environments it will inhabit, and then it subjectively defines the environments it has selected." Organizations, of course, differ in their abilities and tendency to do this, and the dimensions or characteristics that differentiate organizations in this respect are important objects of study and analysis. That is, their resources and operational strategies differ, and these factors constitute determinants of the firm's effectiveness.

Despite the role of the organization in selecting and constructing its environment, it clearly lacks the power to change many, if not most, aspects of the environment. As open systems, firms conduct exchanges through which important inputs are obtained and outputs--commodities and services--are disposed. Thus, the structures of the environment on both boundaries of the firm have an important bearing on its effectiveness.

A useful way of conceptualizing the environment from the point of view of the firm's leadership is a structure of opportunity-constraints. If we conceive of the socioeconomic environment as composed of other firms and regulatory agencies, we need concepts to distinguish their functional relationships. Pennings and Goodman (1977) classify such external groups as determinants and constituencies. A firm functions as a determinant to the extent that it has some control over the focal firm's inputs or outputs. It is a constituency if it sets constraints and defines "appropriate referents of organizational effectiveness which become incorporated in the overall assessments of organizational effectiveness." Obviously, some alter groups function in both respects, e.g., credit agencies, employers, and contract buyers. Opportunity consists in the range of choice available in selecting alters which function as constituencies and determinants.

The basis for differentiating constraint-opportunity structures is suggested by the typology in Figure 1. That is, owing to the differentiation in domains each type of firm confronts a different environmental complex. The structuring of resources, of the particular farm commodities and/or human services, which the firm seeks to sell, and of its location are especially important in this regard. Race, education, and social class parameters structure human and capital resources. The commodities and/or services determine the relevant technology as well as the input and output structures to which the firm is related. Location is related to structures of the biophysical enviornment, to commodity and labor markets, and to infrastructures that support firms in particular locations. The structural features of these three sets of parameters provide the constraint and opportunity structures for firms within each of the broad types.

Space limitations permit only brief illustration of these opportunity-constraint structures. Marshall and Thompson (1976) provide a thorough reiew of the human resource and institutional opportunity-constraints as they relate to small farmers in the south. Their analysis clearly points up the function of education, age, race, and historic patterns of tenure and types of commodities in structuring opportunity-constraints in farming as well as in nonfarm jobs. The analysis also leads to the conclusion that the most important constraints faced by small farmers involve external economies of size in the purchase of farm inputs, in the access to farm credit, prime agricultural land, and in ability to exercise a measure of control over the marketing of commodities. Cooperatives for small farmers offer a mechanism for coping with many of these constraints, but this possibility directs attention to another set of constraints, those affecting the successful establishment of such arrangements. It will surprise no one that Marshall and Thompson find that small, black, less well-educated farmers have the least favorable constraint-opportunity structures both in farming and nonfarm occupations and in income.

Studies of occupation attainment (e.g., Blau and Duncan 1967; Duncan et al 1972; Haller and Spinner 1977; Spilerman 1977; Ornstein 1977) document the importance of family background race, individual ability and peer influences as general constraints, and there is some evidence from the studies in this tradition about the effects of farm background and similar factors as determinants. The level of aggregation and the exclusive focus on individuals, prestige and income restrict the relevance of the findings for present purposes. The research findings need to be integrated with the recent work on labor market structures (Edwards et al 1975; Stolzenberg 1975; Freedman 1976; Beck et al 1978) as Spilerman (1977) has suggested. These studies demonstrate that earnings and occupational attainments are functions of the type of market available. The principal determinants of opportunity-constraint in the labor market are race, education, and type of career coupled with location specific industry types and their labor requirements. However, little attention has been given to job factors other than prestige and income, or to the role of family members in multiple careers or in support of dual careers.

Nearly all studies have taken prestige and/or income as criteria of realized opportunity, and most have been concerned with individual rather than with the family's or firm's income. Clearly, the Area of Work committee will be most concerned with the latter. However, there are additional dimensions in work, if one takes a broader view of the quality of working life. Studies of the quality of working life (Kahn 1972; Seashore 1974; Campbell et al 1976; Kalleberg 1977; Fein 1976) indicate that satisfaction with work is a function of attributes of perceived job and the work environment. Seashore (1974) and Kalleberg (1977) have identified five to six factor dimensions of work values and rewards which are related to

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worker satisfaction. Factors affecting the degree of control of the job situation, such as race, education, union membership, and unemployment rate, are significantly related to a number of the factor dimensions of jobs and, thereby, to job satisfaction. The focus on the quality of work open a broad arena for further research on the determinants and constituencies of different types of firms, which differentiate constraint-opportunity structures, and affect the assessment of the effectiveness of firms.

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Session 13

Community

"Powerlessness and Its Effects on Social Participation". E. Y. Beauford and M. E. Walker, Jr., Fort Valley State College.

"Determinants of Job Satisfaction Among Indigenous Employees of a New Rural Industry". Thomas J. Durant, Jr., and Alma Thornton, Louisiana State University.

"Public Participation in Administrative Decision-Making: Assumptions and Techniques" Sally R. Purohit, Joseph J. Molnar, and Howard A. Clonts, Auburn University.

POWERLESSNESS AND ITS EFFECTS ON SOCIAL PARTICIPATION*

E. Y. Beauford and M. E. Walker, Jr.**

Historically, social researchers have devoted considerable efforts toward the study of social participation. Many of these studies were centered on documenting the role of social participation in integrating the individual into the mainstream of society. A great deal of attention has also focused on the study of the degree or level of social participation by various segments of the population and to factors influencing social participation. While many of these studies have included a dimension of alienation, few were concerned with the impact that feelings of powerlessness may have on an individual's decision to participate in formal organizations. As a result, the relationship between powerlessness and social participation is still not clearly understood.

Powerlessness is generally viewed as a perceived lack of control over events that affect one's life. Therefore, those segments of the population that express higher feelings of powerlessness would not be expected to participate in social organizations as frequently as those persons who feel greater potential for control over their lives. One area of social participation, however, in which feelings of powerlessness might not be expected to serve as a deterent is that of participation in religious organizations. Traditionally, religion has been viewed as a sustaining force, a crutch providing fortification for those persons who experience the least degree of success in controlling events that affect their lives.

Feelings of powerlessness and level of participation in social organizations, both religious and non-religious, were among the variables included in a study of household heads representing nineteen Middle Georgia counites. Data from this study revealed that the poor and blacks expressed greater feelings of powerlessness than whites and the non-poor. The data also indicated that over seventy-five percent (75%) of the respondents were church members who participated frequently in church related activities.[1] These two distinct characteristics of the Middle Georgia population are factors which prompted this more extensive examination of the relationship between feelings of powerlessness and level of participation in various types of social organizations.

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[1] Walker, M. E. and E. Y. Beauford, Patterns and Levels of Living Among Families in Nineteen Middle Georgia Counties: A Basebook (Publication expected in Spring, 1979).

PREVIOUS WORK

A review of the literature revealed a number of studies on social participation and an abundance of research findings related to powerlessness and other dimensions of alienation, but less which dealt with powerlessness and social participation within the same context as the research problem under study.

Many of the studies which were presented in the literature focused on an examination of the relationship between powerlessness and other dimensions of alienation and social participation. There were several studies which suggested an inverse relationship between powerlessness and social participation within the context of specific situations, i. e., voting and participation in political organizations (Aberback, 1969; Sallach, et. al., 1973) among manual workers (Neal and Seeman, 1964) and among AFDC mothers (Levens, 1968). There were also studies which examined alienation and one of its dimensions, anomie, as factors influencing both formal and informal participation (Bell, 1957; Mizruchi, 1960; Rose, 1959; Renzi, 1969, 1971 and Wilson, 1971). The findings of most of these studies were similar in that an inverse relationship was found between anomie and social participation for both formal and informal organizations - the greater the participation, the lower the feelings of anomie, with the relationship being stronger among disadvantaged respondents.

There was not much evidence of empirical research which investigated the relationship between feelings of powerlessness and level of social participation among blacks. Research which did focus on blacks centered a great deal on participation in political activities (Campbell, Gurin, and Miller, 1954; Campbell, et. al., 1960). These studies generally confirmed the supposition that blacks, especially disadvantaged blacks, were less likely to be affiliated with or to actively participate in social organizations than the population at-large because of lower motivational levels resulting from social alienation, anomie, political apathy or "involuntary isolation" (Lipset, 1960). Additionally, the literature suggested that other factors, i. e., social-economic-status, which significantly affect levels of participation among the general population, might not be valid predictors of participation levels among blacks.

Studies which examined the relationship between dimensions of alienation and participation in religious activities produced differing results. Goode (1967) found strong positive relationships between church attendance and social class. When overall associational participation was introduced, however, the correlation between church attendance and social class was weakened considerably. Bell (1960) found a weak relationship between Srole's anomie and church attendance, but the relationship disappeared when neighborhood SES was controlled. Keedy (1958) found a very moderate positive correlation between anomie and religious orthodoxy. He did not, however, control for SES. Dean (1968) using his normlessness scale, found no significant differences in normlessness according to three indices of religiosity.

In summary, considerable differences are apparent relative to factors influencing social participation. There is also very little conclusive empirical evidence on the specific impact of feelings of powerlessness on level of social participation. This study examines the relationship between feelings of powerlessness (which could indicate isolation from society) and level of social participation (which generally indicates integration into society).

OBJECTIVE

The objective of this study is to examine the relationship between feelings of powerlessness and level of formal social participation generally, and formal participation in non-religious and religious organizations.

The hypotheses tested are:

(1) there is an inverse relationship between feelings of powerlessness and level of formal social participation generally and social participation in non-religious organizations, and

(2) there is a direct relationship between feelings of powerlessness and level of social participation in religious organizations.

RESEARCH DESIGN

Data for this study were obtained through personal interviews from a stratified cross-sectional unrestricted sampling of heads of 943 families from nineteen Middle Georgia counties. Completed usable schedules were obtained from 730 families or approximately 77 percent of those contacted. Families (heads) were stratified on the basis of their current economic situation and the determined economic situation of the respondent's (head's) parents and grandparents. Four groups emerged: (1) The always affluent group included families currently out of poverty and no evidence existed that either their parents or grandparents had ever experienced poverty for a prolonged period. (2) The escaped poverty group indluded families who were currently out of poverty, but evidence existed that both the parents and the grandparents of the respondent had experienced poverty for a prolonged period. (3) The became poverty group included families currently in poverty, but neither the parents nor the grandparents of the respondent showed traces of poverty histories (families in this category were poor mainly as a result of old age or illness). (4) The poverty cycle group included families currently in poverty and evidence existed that both the parents and grandparents of the respondent were also poverty stricken. This analysis involves two sub-groups of the usable sample. They are: (1) poor (which included the poverty cycle and became poverty respondents) and (2) non-poor (which included escaped poverty and always affluent respondents).

In addition to economic situation, the study design called for the measurement of (1) feelings of powerlessness and (2) level of social participation. Feelings of powerlessness were measured by an eight item scale.[2] (See Table 1).

Conceptually, it was felt that those persons who perceived themselves as having control over their destinies would seek out the necessary reinforcements and presumably, participate more actively in social organizations structured to meet their specific goals and needs. The Likert technique was used for scoring as follows: strongly agree (5 points), agree (4 points), undecided (3 points), disagree (2 points) and strongly disagree (1 point). A high score indicated high powerlessness and vice versa. Actual scores were divided into thirds to reflect respectively, high, medium and low levels of powerlessness.

Indices were also developed which measured degree of social participation generally, as well as participation in non-religious and religious organizations. The non-religious participation index included farm and extension organizations, civic clubs and parent-teacher associations (PTA). The religious participation index included church, Sunday School, and other church-related organizations such as the Masons and Eastern Star. Scores for the social participation indices were based on (1) the number of organizational memberships, (2) frequency of attendance at meetings, and (3) status within the organizations (based on whether or not the respondent was an officer or served as a committee member). Respondents were assigned one point for each of the organizations to which they belonged, one point for attending more than one-fourth but less than one-half of the meetings, and an additional one point for attending more than one-half of the meetings and one point for each time they served as either an officer or committee member of an organization. Total scores were calculated for respondents who participated in any social organizations. The scores were divided into halves and categories of high and low were formed based on the distribution of the scores.

The tests of the hypotheses were based on chi-square (X^2), gamma (G), Kendall's Tau (C), and the Student-t.

FINDINGS

Results of preliminary analysis of data are presented in Tables 2 through 5. As shown in Table 2, the hypothesis of an inverse relationship between feelings of powerlessness and level of social participation generally, is confirmed. The chi-square statistic is significant at the five percent (.05) level, while the gamma (G) coefficient is -0.150. Comparison of the mean scores utilizing the Student-t also indicates significant differences ($t = 2.15$, $p < =.05$). Kendall's Tau (C) of -.094

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[2] For information on the selection of items and scale development, see Walker, M. E. and Beauford, E. Y., "Powerlessness and Poverty: A Case Study," Proceedings of the Rural Sociology Section of the Southern Association of Agricultural Scientists, February, 1977.

Table 1. THE POWERLESSNESS SCALE[a]

ITEMS	AGREE	UNDECIDED	DISAGREE
1. People always take advantage of you.	69.78	5.21	25.00
2. You can't get ahead anymore.	29.80	9.36	60.84
3. Many times I feel that it doesn't do any good to think about what to to do. You might just as well flip a coin.	30.24	13.58	56.17
4. The ordinary person has very little control over what a politician does in office.	57.25	8.80	33.95
5. Success is mostly a matter of getting good breaks.	51.23	12.50	36.27
6. You just have to accept things as they are.	44.10	4.50	51.40
7. One can't do anything about the future.	37.38	8.39	56.83
8. It makes little sense to go out and vote because the average man's vote doesn't count anyway.	24.07	5.25	70.68

[a] A Powerlessness Scale was developed with items more similar to the population under study since pretest and analyses of items included in many of the traditional scales, such as those used by Dean (1961) and Seeman (1960), proved to be too abstract or too sophisticated to tap the feelings of the group under study. (Similar results have been reported by others studying alienation of low income persons - Howie and Hanna, 1976).

The scale was subjected to the usual technical tests to determine unidimensionality, internal cohesion and stability. When subjected to the Guttman procedure, a coefficient or reproducibility of 0.84 was obtained. As for stability, a split-half reliability coefficient, as corrected by the Spearman-Brown formula, of 0.74 was obtained.

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also shows a significant association ($p < = .001$) between feelings of powerlessness and level of social participation.

Table 2. Relationship Between Feelings of Powerlessness and Level of Social Participation

	Total Social Participation			
			Total	
Powerlessness	Low	High	Percent	N
Low	39.0	61.0	100	354
Medium	47.7	52.3	100	193
High	48.8	51.4	100	183
TOTAL	XXXX	XXXX	100	730

$X^2 = 6.245$ df = 2 $p < = .044$ G = -0.150 C = -0.094 $p < = .001$

An inverse relationship was also found between feelings of powerlessness and participation in non-religious organizations (Table 3). The chi-square statistic is significant at .0001, with a gamma coefficient of -0.505. The relationship is also confirmed by a Kendall's Tau of -0.088 ($p < = .0002$) and a comparison of the mean scores which produced a Student-t of 3.49 ($p < = .001$).

Table 3. Relationship Between Feelings of Powerlessness and Level of Participation in Non-religious Organizations

	Participation in Non-religious Organizations			
			Total	
Powerlessness	Low	High	Percent	N
Low	87.6	12.4	100	354
Medium	95.3	4.7	100	193
High	96.7	3.3	100	183
TOTAL	XXXX	XXXX	100	730

$X^2 = 17.73$ df = 2 $p < = .0001$ G = -0.505 C = -0.088 $p < = .0002$

Data presented in Table 4 indicate that no significant relationship exists between feelings of powerlessness and level of participation in religious organizations. None of the statistical tests were significant at the ten percent (.10) level for chi-square.

Table 4. Relationship Between Feelings of Powerlessness and Level of Participation in Religious Organizations

	Participation in Religious Organizations			
			Total	
Powerlessness	Low	High	Percent	N
Low	48.0	52.0	100	354
Medium	50.3	49.7	100	193
High	51.9	48.1	100	183
TOTAL	XXXX	XXXX	100	730

$X^2 = 0.777$ df = 2 $p <= .678$ G = 0.550 C = -0.035 $p <= .080$

The relationship between feelings of powerlessness and level of participation when controlling for economic situation and race, is presented in Table 5. In instances where significant differences were found for the total population, they disappeared when economic situation and race were controlled. This was the case among the poor and blacks with regard to social participation generally as well as for participation in non-religious organizations.

Table 5. Chi-square (X^2), Gamma (G), and Kendall's Tau (C) Showing the Relationship Between Feelings of Powerlessness and Level of Social Participation When Economic Situation and Race are Controlled.

Control		Degrees of Freedom	X^2	Sig. Level	Gamma (G)	Kendall's Tau (C)	Sig. Level
			TOTAL SOCIAL PARTICIPATION				
Economic Situation	Poor	2	1.016	NS	-0.005	-0.003	0.474
	Non-poor	2	8.297	0.016	-0.214	-0.126	0.000
Race	Black	2	3.684	NS	-0.092	-0.061	0.049
	White	2	5.737	0.057	-0.200	-0.107	0.000
			PARTICIPATION IN NON-RELIGIOUS ORGANIZATIONS				
Economic Situation	Poor	2	2.048	NS	-0.121	-0.007	0.446
	Non-poor	2	10.958	0.004	-0.455	-0.884	0.001
Race	Black	2	3.863	NS	-0.253	-0.029	0.215
	White	2	9.167	0.010	-0.509	-0.094	0.002
			PARTICIPATION IN RELIGIOUS ORGANIZATIONS				
Economic Situation	Poor	2	0.558	NS	-0.019	-0.012	0.403
	Non-poor	2	2.542	NS	-0.107	-0.063	0.014
Race	Black	2	1.917	NS	-0.744	-0.049	0.089
	White	2	2.134	NS	-0.077	-0.041	0.110

NS = Not Significant at the 10 percent (.10) level.

CONCLUSION AND DISCUSSION

The purpose of this study was to determine the relationship between social participation and powerlessness using a sampling of household heads representing nineteen Middle Georgia counties. Analysis of data revealed that high feelings of powerlessness may have the effect of inhibiting or decreasing participation in social organizations as suggested by the inverse relationship between feelings of powerlessness and level of social participation generally and social participation in non-religious organizations. The data also suggests that participation trends which may exist for a total sample population (i.e., inverse relationships between powerlessness and social participation) may cease to exist when controlling for race and economic situation.

While these findings are generally consistent with the findings of similar studies, some uncertainty remains regarding key factors which affect levels of social participation, especially among the poor and blacks. Using the analytic framework of participation in formal organizations, the strong inverse relationship that might be expected as one reviews the literature on alienation, was not found among blacks and the poor represented in the sample.

Instead of providing answers, findings resulting from these data generated more questions. Among them are: (1) "If a major function of social participation is the integration of the individual into the mainstream of society, (given that in many instances, i. e., membership, attendance and office-holding in church, church-related activities and the PTA, blacks in the sample participated with greater frequency than whites), why then has this not lowered their feelings of powerlessness and alienation?" and (2) "Are the 'assumed' effects of powerlessness on social participation equally applicable to blacks and whites?" Olsen (1970) and Williams, et. al. (1973) have found that while participation by blacks may be extensive, level of participation may be more the result of an ethnic community identity. Consequently, feelings of powerlessness or economic situation (or SES) may or may not be causal factors affecting levels of social participation among blacks.

This study on powerlessness and its effects on social participation has led to the conclusion that more research needs to be directed toward the exploration of factors which affect both level and type of social participation, especially among the poor and blacks, if more successful efforts are to be directed toward reducing feelings of alienation and powerlessness and the isolation of the disadvantaged from the mainstream of society.

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DETERMINANTS OF JOB SATISFACTION AMONG INDIGENOUS EMPLOYEES OF A NEW RURAL INDUSTRY

Thomas J. Durant, Jr.
and
Alma Thornton

Introduction

A. The Problem

In the last decade, many industries previously located in the eastern and western regions of the country have relocated in southern rural areas. In addition, many new manufacturing industries have established in rural areas of the South. This invasion by industrial factories has undeniably produced greater differentation, diversification, and stratification of the rural occupational structure. In essence, this means that industrial manufacturing occupations have become a more significant part of the rural job market. As a result of this trend, large numbers of once chiefly rural farm workers are seeking and obtaining new types of employment. Such persons now work in factories where they perform more specialized and routinized tasks. Many rural women, formerly employed in the household, have now acquired jobs in the factory, and in recent years, the number of females employed in the rural industrial labor force has increased.

Rural persons who have acquired industrial manufacturing jobs are encountering new dimensions of the work environment. They work as salaried or wage workers. in specialized and routinized jobs along with a large number of other employees, some neighbors and some strangers. They work "by the clock" under close management and supervision. In essence, they are members of the "firm." The industry demands strict conformity to work rules and guidelines while deemphasizing individual interests and values largely reflected by the traditions and customs of the surrounding community. In some instances, work "values" of the factory conflict with the life styles and family relationships of the employees. For example, many working mothers of the industry under study were forced to find

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[1] This research was supported by the Louisiana Agricultural Experiment Station, Project 1793.

day-care for their young. Plant work also interfered with the local life style of hunting, resulting in high absenteeism from work during hunting season. Eventually, the plant management was forced to establish a special "holiday" during hunting season as a concession to the prevailing life styles.

As a result of the above trend, a new area of social investigation is emerging in the area of job satisfaction of workers in areas of rapid occupational transition. By transition here, we mean rural areas undergoing diversification or change from non-manufacturing type occupations, say pulpwood production and processing, to manufacturing type occupations, as seen in the the wire and cable plant of the study area. An important area of study thus becomes the level of job satisfaction of "transitional" workers of newly established manufacturing industries of rural areas. In other words, what effect does occupational diversification and transition in rural areas, fostered by the invasion of manufacturing industry, have on job satisfaction among indigenous workers of the industry? Moreover, what factors influence job satisfaction among rural industrial workers? As of now we can only guess as to whether the well-known economic benefits of newly established rural industries have offset demands for work-related change or any problematic social and psychological consequences for the employees.

The absence of research on job satisfaction among rural industrial workers represents a serious limitation in attempting to answer the above questions. To put it mildly, there is a void of research on job satisfaction among workers of rural industries. Likewise, research on community satisfaction in general is scarce (Rojek, 1975). According to Locke (1969), by 1960 over 4,000 studies had been conducted on the phenomenon of job satisfaction. The irony is that almost all of these studies used urban subjects as opposed to rural subjects. This can be explained in part by the fact that the widespread establishment of manufacturing industries in rural areas largely occurred within the past two decades, and this has elicited very little reaction from rural sociologists. Thus, we are left with no other choice but to use urban-based studies on job satisfaction in formulating the theoretical base for the present study.

This study assesses the relevance of situational characteristics of the individual (personal), situational characteristics of the job (occupational), and individual orientations (attitudes) toward family and community life, in explaining job satisfaction among employees of a recently established manufacturing industry of a rural area. A correlational analysis, including zero-order correlations and partial correlations, were used to assist in making this assessment. This study also assesses the level of job knowledge about job satisfaction and its determinants among workers in different jobs in different environmental settings.

RELATED LITERATURE

A. Conceptualization of Job Satisfaction

Numerous attempts have been made at providing clarity and understanding for concept of job satisfaction. Perhaps one of the most indepth treatments of this concept has been provided by Locke (1969). Locke defines job satisfaction as "a function of the perceived relationship between what one wants from one's job and what one perceives it as offering or entailing." In such a manner, he identifies an emotional state which culminates from an assessment or appraisal of the potentials the job has of fulfilling a desired end, that is, the job's intrinsic value to the individual. In our opinion, Locke's definition of job satisfaction is both sound and appropriate for use by the present study. His focus on the job's intrinsic value to the individual is compatible with the way that job satisfaction is operationally defined in this study.

Wanous and Lawler (1972) specifically cite nine different operational definitions of job satisfaction, noting major difficulties of all in identifying specific facts relevant in a given setting to a particular person. Differences in how job satisfaction is conceptualized were also noted. For example, while some look at overall job satisfaction, others look at satisfaction with regard to a particular aspect of the job. Still others differ in which facet they identify as important in determining job satisfaction. For more detailed information on the definition of job satisfaction see Wanous and Lawler (1972) and Locke (1969).

B. Determinants of Job Satisfaction

There is confusion over whether the determinants of job satisfaction lie totally within the domain of the job or within the worker's value orientation and social characteristics. The traditional model assumes that the determinants of job satisfaction lie in some dimension of the job itself, such as the nature of the job, promotion prospects, salary, employee relationships, type management, etc. When the sum of these dimensions give rise to feelings of "contentment," the individual is satisfied with his job. However, whether or not the individual is satisfied with his job in the long run is dependent upon the value and expectations held of the job as judged by the worker. This is often referred to as expectancy theory. In other words, job satisfaction is dependent upon what the individual initially anticipates occurring in the job environment. Thus, job satisfaction may vary from individual to individual, for they will have in many instances different expectations of the same job (Grunberg (1976).

THE STUDY MODEL

Determinants of job satisfaction have been studied within the framework of two approaches: (1) individual characteristics as determinants of job satisfaction, such as age (Herzberg et al 1957; Hulin, 1965), sex (Herzberg, et al, 1957; Zaleznik, et al, 1958; Hulin and Smith, (1965), education (Ash, 1954; Vollmer and Kinney, 1955; Suehr, 1962; Sinha and Sarma, 1962), and occupational level (Gurin, et al, 1960; Porter, 1962); and (2) job characteristics as determinants of job satisfaction, such as organization and management (Brazziel, 1957; Mann and Williams, 1962), immediate supervision (Pelz, 1952; Zander and Quinn, 1962), social environment of the job (Zaleznick et al, 1958; Gurin, et al, 1962), communication (Levitt, 1951; Suehr, 1962), security (Gurin, et al, 1960; Crites, 1961; Mann and Williams, 1962), monotony (Smith, 1953; Kennedy and O'Neal, 1958; Roy, 1959; Kilbridge, 1960, 1961), and pay (Troxell, 1954; Herzberg, et al, 1957).

Individual Characteristics as Determinants of Job Satisfaction

This study utilizes the individual characteristics approach to the study of determinants of job satisfaction. The unique aspect of this study, as compared to previous studies, is that it enlarges upon the theoretically relevant variables which can used to explain job satisfaction. Characteristics of the individual were included under three theoretically meaningful dimensions: (1) personal characteristics, (2) occupational characteristics, and (3) attitudinal characteristics.

A major assumption underlying the present model is that individual characteristics of rural industrial workers can largely explain level of job satisfaction. Personal, occupational, and attitudinal characteristics of the worker are substantively different and can be treated analytically as distinct variables. Furthermore, it is also assumed that job satisfaction can be accurately and validly measured through responses of the workers, in terms of their overall job satisfaction and in terms of the evaluation different job conditions and characteristics. An additional assumption made is that job satisfaction is influenced by the type of work and the nature of the values of work of people in different sociocultural settings, that is, rural or urban settings, past work history, and social background.

METHODS

The study industry was a wire and cable manufacturing plant located in a small rural community of 2,746 total population, anonymously referred to in this study as Hilltown. Hilltown is located in a 100 percent rural county, according to the definition of rural used by the 1970 Census.

The wire and cable plant located in Hilltown in 1969, and is the dominant industry of its type in the area. The plant employs 400 persons, and the employment criteria for most of the positions are: a minimum of 6 years of formal education, and the ability to read and write. Most of the employees work as operators, laborers, and clerical workers. Two-thirds of the employees were females, and the majority of the employees lived in the same county where the plant was located.

A systematic sample of 152 wage and salary (non-management) employees were selected from a master list of the employees. The subjects were interviewed in the plant cafeteria with the aid of the personal interview technique. The refusal rate was almost nil. The data were collected in 1977.

A. Dependent Variable

Two measures of the dependent variable, job satisfaction, were used for comparative purposes. The first measure was a general indicator of job satisfaction. The second measure of job satisfaction was indicated by scores derived from a scale consisting of 13 items, each with three response levels: 1 = like; 2 = dislike; 0 = don't know. A job satisfaction score was computed for each subject. The score range was 1-13.

B. Independent Variables

The independent variables used in this study are personal variables: age, education, income, income changes, number children at home, and social participation; occupational variables; occupation level, different jobs held, proximity to job, unemployment frequency, and job advancement; attitudinal variables; occupational appreations, community satisfaction, home satisfaction, and level of living satisfaction. In addition to these variables, race, sex, marital status, place of residence, and community size preferred to live in were used. Contingency tables including chi-square were used in assessing the association between each of these nominal variables and job satisfaction. Zero-Order correlations, partial correlations, and multiple coefficients of determination (R^2 or proportion of explained variance) were used in assessing the strength of the association between the 16 interval level independent variables and job satisfaction.

DISCUSSION OF FINDINGS

A. Job Satisfaction

The results of this analysis revealed that the majority of the employees were satisfied with their job. This was true regardless of which one of the two indices of job satisfaction was use. It should be noted that the two indices of job satisfaction overlapped to a considerable degree, as indicate by a highly significant correlation of .42 (P = .0001). The multi-item index of job satisfaction, however, permits a more refined assessment of the specific intrinsic and extrinsic characteristics of the work. The inter-item correlations of the job satisfaction index appear in

Table 1. The results reveal that the overwhelming majority of the interviews were satisfied with the conditions and characteristics of their work, especially the people they worked with, treatment by the boss, responsibility of their job, steadiness of the work, number of working hours, importance of their job, work conditions, and the kind of work performed. It is indeed interesting to know that people who accept jobs in manufacturing industries of rural areas generally are satisfied with their job. This finding, however, could mean that employees equate job satisfaction with being currently employed. Further caution in interpreting these results should be made in that the interviewees may have had a tendency to present a positive image of their job with the reasoning that to accept a job and become gainfully employment is self-fulfilling of satisfaction and gratification. When the interviewees were asked to evaluate their level of satisfaction with specific dimensions of their job, some evidence of dissatisfaction was revealed. A sizeable proportion of the interviewees were not very satisfied with their earned income (35.57 percent). This sentiment could have serious repercussions for industries who capitalize on the abundance of "cheap labor" found in rural areas, most of whom are women who are recent additions to the job market and who are upward mobile. It may be only a matter of time, however, before sentiments of satisfaction with employment change to demands for higher salaries.

Apparently many of the respondents had not become accustomed to the routineness and monotony of their work, as indicated by the fact that 23.74 percent disliked this aspect of their work. Sizeable proportions of interviewees also disliked their chances for getting ahead (17.57 percent), distance travelled to work (14.67 percent), and retirement or other fringe benefits (10.81 percent). These findings suggest that many employees of newly established rural manufacturing industries will have to change their orientation about their type of work if they are to successfully adapt in the long run. The results also indicate that industries which plan to locate in rural areas should not only be concerned with the size of the potential labor force, but also the availability of these persons for employment, and the extent to which conditions and characteristics of manufacturing work are viewed as acceptable. Too often this latter factor is ignored, and greater priority is given to the numerical size of the pool of prospective workers.

B. Determinates of Job Satisfaction: A Correlational Analysis

Zero-order and partial correlations were used to assessed the value of three different sets of independent variables in explaining job satisfaction among the interviewees. These results are shown in Table 2. Only the most significant results will be discussed here.

Among the personal variables, age, education, and income proved to be the most significant, as determined by the zero-order correlation coefficients shown in Table 2. Age and income were strongly and positively correlated with both indices of job satisfaction; however, eduation was strongly and inversely correlated with job satisfaction. These results suggest that older employees and those with higher income tended to be more satisfied with their job than other employees. On the other hand, the results indicated that the lesser educated employees were relatively more satisfied with their work. Apparently the more highly educated employees felt that were deserving of better jobs and higher incomes. It should be noted that education and income provided the most powerful explanation of both indices of job satisfaction and yielded very strong and highly significant partial correlations (Table 2). When the occupational variables were considered, it was found that job duration was significantly and positively correlated with both indices of job satisfaction. Other important variables were times unemployed (-.21) and job advancement (.28). The strong positive partial correlation between job advancement is a more important source of job satisfaction, compared to the other occupational variables. These results indicate that when assessing occupational variables, opportunities for job advancement play a major role in the level of job satisfaction. Other factors of less significance to job satisfaction are the length of time employed and the number of times unemployed. In the latter case, the inverse correlation suggests that employees who experienced more unemployment in the past were relatively less satisfied with their job than other employees. Two attitudinal variables, occupational aspiration and level of living satisfaction attained significant positive zero-order correlations with job satisfaction. Apparently satisfaction with community and with level of living contributed to some degree to job satisfaction. Occupational aspiration was found to be strongly and inversely correlated with both indices of job satisfaction. This was true for both simple and partial correlations for the variables. These inverse correlations suggest that those employees with lower occupational aspiration tended to be more satisfied with their job that other employees. Logically we expect, then, that employees with higher occupational aspiration were less satisfied with their job. This could possibly be explained by the fact that employees with higher occupational aspiration felt that their jobs were below their level of expectation. Perhaps those employees with lower occupational aspiration were content with maintaining their present job.

Previous studies have suggested that employees at the higher occupational positions are more satisfied with their job than employees of lower occupational positions. This study found no significant relationship between occupational level and job satisfaction. This may have been due to the fact that the occupational positions of the industry were fairly homogeneous, in terms of income, status, and prestige. Eighty-four percent of the interviewees were blue collar workers. Apparently income and job advancement opportunities are more important motivating factors of job satisfaction in such occupational conditions.

An analysis of several socio-demographic variables revealed that greater percentages of blacks, females, married individuals, rural residents, and those preferring to live in small towns had a higher level of job satisfaction than other employees. This was true for both indices of job satisfaction with the exception of race. There is possibly a common element to be found among respondents from all of the above groups. Namely, such respondents represent the most underemployed segment of the rural economy. As such, they are more eager to seek and more apt to accept almost any type of employment. Therefore, job satisfaction would be expected to be greater among such persons, most of whom held much lower occupational positions (especially incomewise) prior to attaining industrial employment. In addition, industrial employment presents a relatively new situation to many employees, and they may not be fully aware of the extent of the rewards they could possibly reap. Further study should be conducted to determine if the initial high level of job satisfaction manifested by the employees will continue or decline with the length of time the industry remains in the community.

In summary, personal, occupational, and attitudinal characteristics were found to influence job satisfaction of employees of a recently established rural industry. Education and income were found to be the more important personal factors influencing job satisfaction. Job advancement opportunities and job duration were the most important occupational factors, and occupational aspiration and level of living satisfaction were found to be the more important attitudinal factors influencing job satisfaction. In general, the higher the income, age, job advancement opportunities, level of living satisfaction, and job duration, and the lower the level of education and occupational aspiration, the higher the job satisfaction of the employees. In addition, job satisfaction was relatively higher among black, female, married, and rural employees, and those preferring to live in small towns. It is apparent that more research is needed in this area before definite conclusions can be reached regarding determinants of job satisfaction of employees of namufacturing industries of rural areas. In this regard, studies on the short-term and long-term effects of manufacturing employment on indigenous rural workers are needed.

Table 1. Zero-Order Correlations of Items of the Job Satisfaction Index With Means and Standard Deviations (N=152)

Items	2	3	4	5	6	7	8	9	10	11	12	13	14	15	X̄	Standard Deviation
1. Number of hours you work.	.07	.01	-.24*	-.05	-.02	.12	-.01	.21*	-.05	.11	.02	.19*	.13	.25*	1.06	.26
2. Steadiness of your work.		.15	-.01	.15	.20*	.21*	.31	.25*	.08	.23*	.01	-.18*	.15	.49*	1.03	.26
3. Doing the same job.			.11	.22*	-.04	-.02	.11	-.09	.16	.34*	.00	-.10	.28*	.41*	1.23	.44
4. Way the boss treats you.				.06	.21*	.02	.02	-.02	.23*	.06	.01	.02	.03	.29*	1.03	.24
5. Working conditions.					.16*	.03	.23*	-.08	.33*	.32*	.02	-.21*	.24*	.47*	1.07	.30
6. Amount of responsibility.						.11	.21*	.19*	.26*	.07	.01	-.03	.19*	.44*	1.02	.24
7. Importance of your work.							.19*	.01	.03	.20*	-.01	.05	-.03	.37*	0.97	.27
8. Chances of getting ahead.								.11	.33*	.22*	.00	-.18*	.16*	.59*	1.13	.47
9. Retirement and other benefits									-.04	-.03	.01	-.04	.09	.36*	1.05	.42
10. Amount of money earned.										.13	.05	.00	.32*	.62*	1.33	.53
11. Kind of work.											.02	-.04	.35*	.52*	1.08	.29
12. People you work with.												.03	-.05	.00	.99	.08
13. Distance travelled to work.													.00	.07	1.14	.36
14. General job satisfaction (scale).														.42	1.66	.59
15. Job satisfaction (scores).															14.12	1.72

*Correlation significant at or beyond the .05 probability level.

Table 2. Zero-Order Correlations, Partial Correlations and Explained Variance of Three Sets of Individual Characteristics With Each of Two Job Satisfaction Variables

	Job Satisfaction Scores		General Job Satisfaction	
	Zero-Order Correlations	Partial Correlations	Zero-Order Correlations	Partial Correlations
Job satisfaction scores	—		.42*	
Personal Variables				
Age	.20*	-.01	.29*	.10
Education	-.30*	-.32*	-.40*	-.49*
Income	.16	.23*	.20*	.30*
Social Participation	-.16	-.11	-.03	.09
No. children	-.01	.05	-.03	-.12
Income change	.12	.01	.13	.12
	R_2 = .34		R_2 = .17	
Occupational Variables				
Occupational level	-.05	.00	-.03	.05
Job advancement	.16	.09	.28*	.27*
Job duration	.21*	.13	.21*	.14
No. past jobs	-.12	-.01	-.14	-.04
Times unemployed	-.21*	-.14	-.13	-.06
Distance to job	.05	.01	-.06	-.07
	R_2 = .14		R_2 = .07	
Attitudinal Variables				
Occupational aspiration	-.30*	-.27*	-.27	-.20*
Community satisfaction	.14	.07	.21*	.09
Home satisfaction	.08	.04	.03	-.01
Level of living satisfaction	.13	.01	.35*	.28*
	R_2 = .26		R_2 = .15	

*Correlations are significant at or beyond the .05 level of probability.

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PUBLIC PARTICIPATION IN ADMINISTRATIVE DECISION-MAKING: ASSUMPTIONS AND TECHNIQUES

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Citizen participation is an American historical tradition which has received increasing attention in the last two decades (Strange, 1972). The meaning of participation has been broadly interpreted, depending on the orientation of the user and the particular context to which it is applied (Wengert, 1976:23). For instance, citizen participation has been an essential component of both urban and rural development programs, but also it has been viewed as a desirable outcome independent of other policy objectives (Molnar and Purohit, 1978).

Definitions of citizen participation, whether broad or narrow in scope, interpret citizen participation as a set of behaviors differentiated from social participation (Voth and Bonner, 1978a). Most definitions emphasize some sort of voluntary involvement in order to influence decision-making, but the goals and purpose of that involvement are subject to widely different interpretations. For example, Voth and Bonner (1978a) view the goal of public participation as exerting influence while Arnstein (1969) considers the goal of citizen participation to be the redistribution of power, transferring power to the "have-nots" (the poor and minority groups).

Beyond a central focus of most definitions of citizen participation on influence or power, definitions differ depending on how they view the relationship between ordinary citizen and decision-maker. The two polar extremes either grant the citizen the ultimate right to make decisions or give this authority to the administrative decision-maker. Other definitions provide the citizen with veto power, but leave decisions in the hands of technical agencies, or see the need for passive citizen input into decisions, such as in attitude surveys (Aleshire, 1970:369-370). These basic viewpoints tend to determine the techniques or tools utilized to implement citizen participation.

While various political behaviors, such as voting or running for office, may also be considered citizen participation, this paper focuses on administrative participation; that is, the participation of citizens in some way in administrative decision-making. Two major components of administrative participation are: (1) the role definition prescribed for the citizen - is participation highly structured or fairly unstructured? and (2) the role agencies or organizations take in encouraging or discouraging citizen involvement.

The major purpose of this paper is to examine citizen participation in the context of administrative decision-making and to develop a framework which relates sets of assumptions or strategies of participants and administrators with selected citizen participation techniques. In order to develop this framework, six basic techniques are examined: the workshop, the attitude survey, the public hearing, the role of mass media, interviews with knowledgeables, and the use of advisory groups. Operational characteristics of these techniques are specified in terms of goals, objectives, direction of flow of information between decision-makers and citizens, and the nature of participation (direct, indirect or open).

An important component of citizen involvement processes is the assumptions or strategies held by participants and administrators which motivate the use of various citizen participation techniques. In this paper, four of the major typologies of assumptions from the literature are compared in order to identify common themes as well as inconsistencies. A framework of eight basic assumptions is derived from this analysis and related to the selected citizen participation techniques. The major objective of the paper is to explicitly identify major dimensions of variation in citizen involvement strategies and to explore their implications for the design and management of administrative systems of participation in decision-making.

This type of analysis may be useful in reducing the potential for conflict between participants and decision-makers by identifying basic assumptions and establishing linkages between assumptions and techniques of citizen involvement. Discrepancies between goals or assumptions of decision-makers and citizens may be a major cause of limited success in citizen participation programs. Decision-makers and citizens may hold conflicting views of the aims of a particular technique and when the parties share different assumptions about the process, confusion or conflict may jeopardize the ongoing program. The mere implementation of public involvement programs does not guarantee diminished conflict between decision-makers and citizens (Priscoli, 1975) or wiser, more democratic political decisions (Wengert, 1971). Delineating assumptions and relating them to citizen participation techniques should be helpful to agencies and citizens involved in programs of citizen participation.

The Federal Role in Citizen Participation

Recent years have seen an emerging concern among federal agencies and in various federal programs for citizen involvement in planning and decision-making. In the 1960's, the community action programs of OEO and the Model Cities activities of HUD were specifically designed to increase the participation of the poor and minority groups. Since 1970, many federal agencies have received legal or verbal mandates to ensure public participation in program design and implementation. These guidelines have been very broad and have left details of formulation to the particular agency (Spiegel, 1971; Rosenbaum, 1976).

The efforts of many federal agencies to comply with public participation regulations generally have been uneven and often passively pursued.

While some agencies, such as the Environmental Protection Agency and the U. S. Army Corps of Engineers, have engaged in several types of public involvement activities, most agencies do not have a funded program of citizen participation with explicit objectives and direction (Rosenbaum, 1976). Federal water agencies have typically utilized opinion leaders and influential citizens in the decision-making process, but certain groups and water-related interests have usually been ignored (Wengert, 1971:30).

Other federal agencies which have been mainly responsive to interest groups and congressional committees in the past are now encouraged to expand the decision-making process to include all relevant interests and to consider other criteria in decisions besides benefit-cost ratios (Doerksen and Pierce, 1975:955). Participation strategies which only include those groups of individuals which would benefit from proposed projects are subject to increasing criticism. Recently, the U. S. Forest Service has incorporated public review and comment at several points in the planning process (Irland, 1975:266-267). The Corps of Engineers experimented with a new participation strategy in one local project, which increased the input from influential residents by allowing consideration of alternative development plans (Wengert, 1971:30-31).

The Citizen Participation Literature

Studies of citizen participation may be grouped into three basic types: (1) case studies of projects or issues, (2) analyses of participative actors-the citizens and administrative decision-makers, and (3) techniques of citizen participation (Potter, 1978). There has also been some limited theoretical work, which has attempted to tie citizen participation to models of political behavior, to community power studies or to more general theories of social behavior (e.g. Wengert, 1976; Potter, 1978; Cunningham, 1972).

For the purposes of this paper, studies of techniques and analyses of who participates, as well as papers considering theoretical issues, are most relevant. Case studies typically report on specific citizen participation techniques which were utilized and examine the relationship between administrative staff and involved citizens. The cumulation of such studies may produce generalizable results, but comparison is often difficult due to the idiosyncratic nature of most participation programs.

The characteristics of those who participate in administrative decision-making has been the focus of many studies of citizen involvement. Based on the history of participation in the 1960's and 1970's, it has been well established that it is the middle-class, white, upwardly mobile citizen who participates rather than the poor, minority group member (Lazar, 1971; Burch, 1976). In addition, research on political behavior has identified factors which influence individual participation (Verba and Nie, 1972). For example, personal motivational characteristics and certain political attitudes are associated with a tendency to participate. Also, involvement fosters greater involvement; citizens who engage in some forms of participation will be more likely to engage in other forms (May, 1971:40).

An important component of the interaction between citizen and administrative decision-maker is the perspective with which agency personnel view the citizen participation process. In contrast to the tools or techniques of citizen participation, the perspective refers to the underlying assumptions or strategies of a citizen participation policy of a federal agency. There have been several typologies of strategies developed. For instance, Fox (1971) has enumerated the following strategies: (1) decentralization - through dissemination of federal funds and authority to local agencies, (2) engineered consent - education of the public to provide support for agency programs, (3) therapy - to integrate the alienated minority into the larger society, (4) equal protection - to give powerless groups a voice in decisions, etc. Others who have developed similar typologies are: Arnstein (1969) who elaborated a ladder of citizen participation based on degree of citizen power; Burke (1968) who identified five citizen involvement strategies; and Wengert (1976) who classified perceptions of public participation.

A wide variety of citizen participation techniques have been developed in recent years. Two federal agencies that have been leaders in compiling and experimenting with citizen participation procedures have been the U. S. Forest Service and the Federal Highway Administration. Other sources of techniques include Lind (1975) who examined 18 types of approaches, and Rosener (1975) who presented a matrix of techniques and various functions they serve. Another excellent resource is the bibliography of Citizen Participation in Rural Development (Voth and Bonner, 1977). Private consulting firms such as Conner Development Services specialize in teaching citizen involvement techniques.

Citizen Participation Techniques and Related Assumptions

Six of the most widely used citizen participation techniques include: the workshop, attitude survey, public hearing, interviewing knowledgeables, mass media, and advisory groups. An examination of each technique reveals certain operational characteristics that make it appropriate to specific situations. In Table 1, the goals associated with each technique are utilized for classification purposes. These particular goals are derived from the three-way classification system of Doerksen and Pierce (1975) and would apply to any citizen participation technique.

According to Doerksen and Pierce (1975), citizen participation strategies generally emphasize one of three major goals or themes: self-fulfilling goals, symbolic goals, or instrumental goals. Programs focusing on self-fulfillment themes generally stress the advantages an individual obtains from participating directly in a decision-making process. Symbolic reasons for citizen participation relate to providing opportunities for public input so that people feel that they may be heard if they desire and consequently the appearance of fairness on the part of the agency is created. As a result, the citizen participation process is viewed as open, and therefore, legitimate.

The third reason for seeking increased public participation is instrumental and pertains to achieving more broadly based decisions. According to this reasoning, wider citizen participation in the policy process takes decisions out of the hands of a small technical elite with their own vested interests and biases. In this way, problems may be made apparent earlier in the planning process. These three major goals or themes may be utilized to examine the selected citizen participation techniques presented in Table 1. Considering the main function of each technique, the survey, advisory groups and interviews with knowledgeables are instrumental techniques; the workshop and mass media are self-fulfilling techniques; and the public hearing is basically a symbolic technique.

The nature of participation is another classification which appears in Table 1. This is a three-level category relating to whether a particular technique involves direct, indirect or open participation. Direct participation is the face-to-face involvement of citizens interested in a particular decision-making process. This type of participation contrasts with indirect participation, in which persons are designated to represent the larger community. Indirect or representative participation has been the dominant theory of American government. Open involvement refers to an open-ended administrative process, in which anyone who wishes to participate may do so. The public hearing is a good example of a model of open participation. Of the six participatory techniques listed in Table 1, three are direct, and one is indirect. Sometimes advisory groups are direct or indirect, depending on how they are formulated.

The last item in Table 1 shows the information flow between decision-maker and citizen. One-way interaction between citizen and decision-maker characterizes every technique except the public hearing which is ideally a dialogue between the public and administrators. The one-way flow of communication may pass from decision-maker to citizen or vice versa, depending on whether the decision-makers are attempting to disseminate or gather information.

In Table 2, four typologies of citizen participation from the literature are examined for common elements or basic assumptions. These typologies are drawn from Arnstein's ladder of citizen participation (1969), Burke's five citizen participation strategies (1968), Fox's assumptions of citizen participation policy (1971), and Wengert's classification of perceptions of public participation (1976). The first three assumptions which are derived from these typologies directly relate to extent of power change: 1) a shift to citizen control, 2) a more measured transfer of power, and 3) the development of consensus through negotiated decisions.

The right of citizen involvement is a normative decision which may either be an administrative goal or a participant goal. It originates from the consideration that a person who is affected by a decision has a right to participate in that decision. Other assumptions in Table 2 include: education or employment of participants, and reform of participants. These two assumptions are commonly voiced in the literature. They both focus on changing the attitudes or behavior of participants through the educational process or direct intervention.

The last two assumptions listed in Table 2 are constituency development and cooptation. Constituency development is broadly interpreted to include consulting or gathering information inputs from citizens, the use of volunteers as a resource, as well as explicit strategies to gain public support for policy. Cooptation is similar to constituency development, but it refers to a more blatant attempt to include groups of citizens in participation programs for the major purpose of preventing these citizens from threatening the organization itself. According to this particular assumption, citizens are not seen as adjuncts to the planning process but they are viewed as potential obstructionists.

Table 3 crosstabulates Tables 1 and 2. In this way, the citizen participation techniques are again the focus of analysis, but they are related to the eight assumptions which were derived from Table 2. Table 3 shows the relationships between the goals and assumptions of a specific technique. Also, the eight assumptions are categorized by group; certain assumptions are more typically held by citizens and others by agency personnel. Some assumptions may easily be supported by either group.

One conclusion which may be reached from this table is that none of these citizen participation techniques are tools which may be used to change the power structure. Other techniques must be used by those outside the system seeking major social change. The six citizen participation techniques examined in Table 3 are particularly appropriate to situations where information or advice is sought from participants, whether due to a desire to gain support for the policy of an agency or to a commitment to public involvement as an end in itself. It may also be noted that advisory groups are a versatile tool, utilized to suit different situations.

These assumptions may easily be shared by participant and decision-maker alike. Perhaps the greatest potential for misunderstanding occurs when different assumptions are held by the participants and decision-makers toward the purpose of one specific technique. For example, if the members of an advisory group anticipate a role in actual decision-making and the decision-makers view the group as a source of information solely, the potential for conflict and disillusionment with the citizen participation process itself is increased. Developing consensus between participants and decision-makers on the goals of a particular citizen participation technique and its underlying assumptions would define and specify the citizen participation process and reduce potential conflict.

Intervening Variables

Variables which intervene in the citizen participation process may generally be divided into organizational and individual limitations (May, 1971). These two groups of constraints combine to produce restrictions on the ideal of inclusive, active community participation. Individual constraints relate mainly to motivational conditions. Obviously, not all people are willing to participate for a wide variety of reasons: lack of interest, lack of knowledge, lack of commitment, or conflict with other participants or organizational goals.

Several studies have examined patterns of noninvolvement (Lazar, 1971; Doerksen and Pierce, 1975; May, 1971) on an individual level. The nonparticipation of minority and low-income groups is often attributed to general patterns of exclusion and isolation from participation opportunities and experiences (Cary, 1970). May (1971) has summarized personal characteristics and orientations towards politics which affect the decision to invest in participation. Lazar (1971) concurs that a combination of motives and beliefs explains who participates and why. It is also important not to underestimate the investment required of participants as a potential cause of noninvolvement. Citizens tend to respond more strongly when they are opposed to an issue than when they support it (Faramelli, 1977). Another stumbling block is that not all citizens possess adequate information on participation opportunities.

On an organizational level, substantial public participation is not necessarily an administrative goal - it is time-consuming, expensive, and may produce results which are nonsupportive of administrative objectives. Two factors contribute to an institutional bias against widespread citizen participation - (1) the tendency of organizations to be controlled by an administrative elite, and (2) the specialized knowledge of professionals which serves as a basis for power (Doerksen and Pierce, 1971). Implementing broad based approaches may be very difficult under these circumstances.

Conclusion

The right of a citizen to participate in a decision which will affect him is a strong American political tradition. In recent years, this tradition and related ideological concepts of citizen involvement have resulted in demands for a more direct role for citizens in administrative decision-making. Partially these demands have originated from concerns over public accountability, from the failure of past policies to reflect the desires of the public, and from the frustrations of individuals over nonrepresentative government (Sewell and O'Riordan, 1976). These concerns have created pressure for greater participation in administrative decision-making, and in many cases, the administrative level of government has been directed to implement new procedures of incorporating citizen input into policy making.

There have been many attempts to define and classify the citizen involvement process. Most definitions center on the question of influence or power, but vary in how they portray the relationship between citizen and decision-maker. Studies of citizen participation have focused on theoretical issues, characteristics of participants and decision-makers, and the variety of public participation techniques in existence.

One important aspect of the interaction between citizen and administrative decision-maker is the underlying assumptions or strategies of a citizen participation program. In this paper, four of the best known typologies of citizen participation assumptions from the literature were examined for common elements. The purpose of this analysis was two-fold: (1) delineation of common threads among typologies of assumptions may be helpful to policy-makers attempting to coordinate aspects of a citizen participation process (such as assumptions and techniques), and (2) the potential for conflict between participant and decision-maker may be reduced if both parties are cognizant of the assumptions they are holding concerning a particular public participation program.

Another objective of this study was to examine the goals and operational characteristics of six of the most widely used citizen participation techniques: the workshop, attitude survey, public hearing, interviews with knowledgeables, mass media and advisory groups. Specific objectives, the nature of participation - whether direct, indirect, or open, and the direction of flow of information between decision-maker and citizen were presented for each participation technique.

The major purpose of this study was to develop a framework relating sets of participation assumptions of participants and administrators to selected public involvement techniques. This framework consists of eight major assumptions. None of the selected participation techniques are appropriate to the two assumptions which seek to modify the power structure. Major transfers of power would have to utilize other techniques (Alinsky, 1972). The specific citizen participation techniques utilized in this study are more suited to situations where information or advice is sought from participants.

This study points to the need for further examination of differing perspectives and assumptions held by administrators and citizens. Much of the citizen participation literature is written from either an agency viewpoint or a citizen perspective, and attempts to link assumptions or techniques of both groups are lacking. Further theoretical work in this area would be useful.

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Table 1. Classification of Citizen Participation Techniques by General Goals and Operational Characteristics

Operational Characteristics	Goals					
	Instrumental			Self-fulfilling		Symbolic
	Survey	Interview Knowledgeables	Advisory Groups	Workshop	Mass Media	Public Hearing
Specific objectives	Gather information about attitudes and opinions	Identify key issues	Provide core of professional and citizen expertise	Educate the participants	Educate the public	Provide opportunities for direct contact between decision-makers and citizens
Nature of participation	Direct	Direct	Direct or indirect	Direct	Indirect	Open
Information flow between decision-maker and citizen	D-M ← C	D-M ← C	D-M ← C	D-M → C	D-M → C	D-M ⇌ C

Table 2. Assumptions of Citizen Participation

	Typologies			
Underlying assumptions	Arnstein	Burke	Fox	Wengert
Change in power	Citizen control Delegated power	Community power	Redistribution of power and resources	Strategy
Transfer of power	Partnership		Decentralization	
Negotiated decisions				Conflict resolution
"Right" of citizen involvement			Equal protection	Policy
Education or employment of participants	Therapy	Education-therapy	Therapy Employment	Therapy
Reform of participants	Manipulation	Behavioral-change		
Constituency development	Consultation Information-giving	Staff supplement	Constituency development	Communication
Cooptation	Placation	Cooptation	Engineered consent	

Table 3. Goals of Citizen Participation Techniques and Their Related Assumptions

	Goals		
Assumptions	Instrumental	Self-fulfilling	Symbolic
Citizen			
Change in power			
Transfer of power			
Citizen or Agency			
Negotiated decisions	Advisory groups		
Right of citizen involvement	Survey		Public hearing
Agency			
Education or employment of participants		Workshop Mass media	
Reform of participants			
Constituency development	Advisory groups Survey Interview knowledgeables		Public hearing
Cooptation	Advisory groups Interview knowledgeables		Public hearing

Session 14

Potpourri

"Some Methodological Problems in Socioeconomic Research in Rural Areas". Surendra P. Singh, William Dan Bolton, and Sammy L. Comer, Tennessee State University.

"The Meaning of Food in an Italian Community". Carol Kasprzak Falkowski and Virginia Steelman nee Purtle, Louisiana State University.

"Values in a Rural Italian Community". Virginia Steelman Nee Purtle and Carolyn Kasprzak Falkowski, Louisiana State University.

"Fowl Work and Offal Activities: A Pilot Study of Moral and Disaffection Among Poultry Processing Employees". Clifton D. Bryant and John P. King, Virginia Polytechnic Institute and State University.

SOME METHODOLOGICAL PROBLEMS IN SOCIOECONOMIC RESEARCH IN RURAL AREAS

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SOME METHODOLOGICAL PROBLEMS IN SOCIOECONOMIC RESEARCH IN RURAL AREAS

BY

Surendra P. Singh, William D. Bolton, Sammy L. Comer

An attempt is made in this paper to discuss some of the problems and raise several methodological issues, which one is likely to face in the course of data collection for socioeconomic research in rural areas. The content of this paper is drawn mostly from the experience which the authors have acquired in the course of working with rural development research projects in rural areas of Tennessee, in the Department of Rural Development, Tennessee State University, Nashville. The issues raised and problems discussed in this paper relate to the empirical investigations into the socioeconomic conditions and changes in various institutions. Strictly speaking, empirical research implies observations and anlysis of data with a view to testing a hypothesis. Sometimes it is necessary to make investigations without a clearly stated hypothesis. In such cases the objective maybe to observe and describe facts and characteristics of a target population. The variety of research efforts of this nature have been broadly classified as empirical studies. This paper considers empirical studies in this broad sense.

Need and Nature of Primary Data

Over the past two decades demand for micro-oriented studies providing basic quantitative data on rural areas has increased. However, many subsections of the rural community have not been studied properly, therefore, data needed to increase knowledge and understanding of them are scarce or nonexistent. For example, there is very little data available for small farms, part-time farms, etc. Microeconomic studies in rural areas provide basic information for planners and policy makers. The results of these studies can be of value in providing technical research workers with a more rational basis for determining their research priorities, while providing factual information on other relevant topics.

Both the quality and quantity of data relating to rural areas in general and the agricultural sector in particular has received increasing attention in recent years. Highlighting the need for improving information on agriculture and rural life, James T. Bonnen, in his 1975 presidential address to the American Agricultural Economics Association stated that "-------------the real implication of the questions raised about the quality of the data upon which we depend as a profession. The significance of these implications for society and for the capacity and social usefulness of this profession is difficult to exaggerate." In any research, data have a definite and important role to play. Through the use of data, we are better able to understand complex and interwoven relationships as they pertain to a particular problem.

The need for data is generally felt by those responsible for making decisions and or formulating policies. However, decision and policy makers rarely use raw data in their work, depending instead on information derived from the raw data through analysis and interpretation. This derived information is placed in a specific problem context, giving the data broader meaning for a particular decision maker. Therefore, the researcher must obtain reliable data to present an accurate account of the nature of problems, their extent, changing patterns, sources, and their effects on the rural population in order for analysis or policy to be meaningful.

Researchers do not necessarily need a new set of tools to conduct research in rural areas. Nevertheless, socioeconomic research in rural areas does exhibit some variation from its urban counterpart. While using the same basic tools in rural areas, researchers may use them in slightly different ways. One common characteristic of studies in rural areas is that they are multi-characteristic in nature, that is, no matter how narrowly the problem under investigation is defined, the researcher is required to collect several characteristics of the universe under study. For example, the study of limited resource farmers would cover a wide range of information relating to production of various enterprises, prices, levels of inputs, and off-farm employment, etc. Also, the study could hardly avoid data collection regarding income, wages, number of farmers, assets, along with such allied information as race, education, etc.

This type of multi-characteristic study presents problems from the very early stages of research up through final analysis. This paper will attempt to point out problems, experiences, and raise issues relating to methodology during the data collection process. Thus, it is assumed that a problem has been identified and defined, and the sample selected by use of various sampling techniques. It is also assumed that a preliminary questionnaire has been developed taking into consideration the objectives of the research problem and the availability of primary and secondary data. Therefore, this paper will cover the data collection process starting with the pretesting phase. Whenever possible or necessary, an example is provided to explain a particular problem or situation and suggestions are made as to how some methodological problems may be handled.

Pretesting

Once the initial survey instrument (hereafter referred to as questionnaire) has been drawn up and polished, the researcher is ready for pretesting. Pretesting is the troubleshooting phase of research in which flaws in the questionnaire, (survey instrument) are identified and corrected. This is done by conducting a small scale field survey. Usually 10 to 20 contacts are sufficient for this purpose. The ideal area for pretesting is the area where the actual study is to be conducted. This provides the researcher with a clearer picture of characteristics of the study area and actual field conditions. However, if the study area is too far away, a local area similiar to the study area can be easily used for pretesting.

More than one interviewer should be used in the pretesting in order to get a better ideal of the range of interviewer difficulties. If at all possible, the researcher(s) should participate in the pretesting. This will provide him with first hand knowledge of the questionnaire's performance in the field.

One of the major benefits of pretesting is that it allows the researcher to determine the best possible sequence of questions. The proper sequence of questions will not only provide an easy flowing questionnaire, but also take the minimum of time to complete the interview. During pretesting, identification of lengthy and/or sensitive questions (sections) is extremely important. Respondents will be hesitant to answer sensitive questions at any time. However, our experiences indicate that if these questions are placed at the end of the questionnaire, it allows the interviewer time to build a better rapport with the respondent, thereby, increasing the chances of obtaining the needed information. Lengthy questions (sections) should also be placed at the end of the questionnaire. If a lengthy question (section) is placed at the beginning or in the middle, respondents are easily frustrated and their answers may reflect their frustrations.

The length of time needed to conduct an interview is another important area to be explored during pretesting. From our experiences, the less time taken to conduct an interview, the better the quality of information. After approximately 30 minutes, respondents become somewhat restless. If the interview takes over an hour to complete, respondents may be more interested in trying to hurry than in giving accurate information. The major benefit derived from pretesting concerns the ability of the questionnaire to provide the data needed to fulfill the objectives set forth by the researcher. The information obtained during pretesting can also pinpoint irrelevant questions to be omitted in the final questionnaire.

After the first pretest has been conducted, the researcher can make any necessary changes in the questionnaire. If extensive revision is needed, a second pretest would be necessary.

Preparing the Community

Preparing the community for the actual survey phase of a research study is an important task. Rural people, particularly people living in remote rural areas are reluctant to give straightforward answers when they do not know just why they are being interviewed. The psychological blocks of fear and suspicion of outsiders cannot be overcome by a frontal attack, but by a slow and patient process of education, persuasion, suggestion and personal appeal. It is rather judicious on the part of the researcher to begin field work by contacting the appropriate state, county, and local officials in order to collect all relevant information that they may have on hand. County and local leaders can also provide important information concerning such items as community characteristics, changes over time, possible problems, etc. It is very important that these officials and leaders are fully briefed on the purpose and scope of the research. One way of securing their cooperation is to ask them to prepare a letter of recommendation which field workers will carry with them. However, some respondents may dislike and/or distrust their officials, or officials in general and refuse to be interviewed. Therefore, we do not rely solely on letters written by officials. While not relying on officials directly, they should be provided with the names of all persons working in the field and kept informed about the progress of the field work. In some areas religious leaders play an important part in local areas. Their cooperation is also essential. The numerous difficulties involved in conducting surveys in rural communities make it essential to work with local leaders, in order to gain the confidence of members of the community.

Announcements or news stories in the local media (generally radio and newspaper) is the best way to inform community residents concerning the upcoming survey. These stories should be run one week before actual field work is to start. This one week lag enables the community time to obtain any additional information concerning the study from local officials. The names of field workers should be included in the stories. If at all possible, pictures of the field workers are to be presented along with the story in the local papers.

Training of Field Workers and Data Collection

Field workers are the key link between the population under study and the research workers. Very often, field workers will get a negative response from a respondent, even though the latter are not disinterested in the research study, but because the field worker is not sufficiently experienced in interviewing. The problem of negative response may be more common in rural areas because of their social and economic backgrounds, along with skepticism toward outsiders.

During the most recent field work in West Tennessee, rural people seemed very reluctant to participate in the interview process. Many believe that they provide information to many different agencies (Census, CRS, Extension, Universities, etc.), but often see no benefits coming their way. Another factor evident during the field work concerned the farm strike. Feelings were very high among the people both ways and one field worker was refused interviews in a community because one group of people thought he was working for the farm strike, and others refused because they thought he was working against it. In the past certain types of businesses have used household surveys to obtain information or as a front to sell some type of product or service. In at least one case, a farmer mentioned that con men have moved through the area; he had his barn painted by these men only to have the paint wash away with the first rain. These along with other factors make it difficult for the field worker to obtain the needed information under the best of conditions. Potentially, good field studies can be ruined by the lack of cooperation on the part of informants, resulting from mistrust and/or misunderstanding of the researcher's intentions. Therefore, it is essential for field workers to be prepared to handle the mistrust and obtain the necessary data.

The selection of field workers and their educational level will depend on the type and complexity of the survey undertaken. If possible, interviewers from the local community itself should be hired. In past studies, graduate students have been used as interviewers. Also, school teachers (Vo-Ag. and others), local community college students, housewives, and farmers were also hired as interviewers. These local interviewers not only know the area, but may also be more acceptable to the respondents. Whomever the interviewers, a thorough and detailed training program must be used to prepare the interviewers for the field work.

In the past, we have found that having two training sessions over a two day period is very useful. In the first session, a reasonable amount of time must be spent on acquainting the field workers about the university, department, source of research funds, and the research survey process in general. Enumerators must also be fully briefed on the purpose and scope of the specific study underway. A good understanding of the above is necessary to reassure informants of the nature and importance of the study.

One of the major points discussed in the first training session is the importance of the first few minutes of contact with the informant. These first few minutes are as important as any time spent during the interview. During this time the informant will either develop enough trust in the field worker and consent to be interviewed or will refuse. Therefore, it is essential for the field worker to create a good impression on the informant. In explaining the reason for the study, we have found it better not to use words such as: survey, interview, research, etc. Often these words have a negative effect on the informant. Instead the field workers should explain that they represent a university interested in the problems faced by rural people. In order to find out about their problems, experiences, and feelings, they are talking to as many people in the area as they can. In our most recent farm study, it was easy to start the informant talking about farm problems. From there the field worker could move quickly into the questionnaire. It may take five to twenty minutes for the informant to feel at ease with the field worker, but it is better to continue talking in general terms and not about specifics until the informant trusts the field worker.

Another important area that should be covered in the first session is how to handle refusals. Some of the enumerators hired by us, had problems accepting refusals. They became discouraged after a few refusals. It must be pointed out that in this type of work, refusals are not uncommon and the only thing enumerators can do is to try and hold them to a minimum. The final part of the first session will be a detailed discussion of the questionnaire. Each question will be discussed along with possible problems field workers may encounter, particularly sensitive information sections will be discussed. While the sensitive information is placed at the end of the questionnaire in order for the field worker to gain the trust of the informant, it should be emphasized that the informant may still balk at answering these questions. Therefore field workers should proceed carefully and slowly with these questions.

The field workers should be given overnight to study the questionnaire. The second session, the next day, will start by answering and discussing any questions the field workers may have. Also, role playing may serve to help the field worker better understand the questionnaire itself and problems he/or she may face. After these stages, some of the field workers may be ready to start. However, some may still have problems. One way to solve any remaining problems is for the trainer to take the field worker(s) that need help out into the field. The trainer will conduct a couple of interviewers while the field worker(s) watch. Then the trainer can allow the field worker(s) to do a couple. This should provide the field worker with the confident to start. We have found it important that person(s) responsible for training field workers, work in the field during pretesting. While there are certain general guidelines that can be followed in training field workers, each study is different and therefore requires a somewhat different approach and explanation. Also, certain issues and/or controversies may effect the mood of the respondent during the present study that did not exist in the past. The more the trainer(s) can inform field workers about the problems, questionnaires and other general issues, the smoother the actual field work will proceed.

While the training sessions are essential, during the actual data collection stage it is very important that the field workers are properly motivated, supported and receive regualr (sometimes surprise) visits by a supervisor or project director. During these visits, instructions are given, any problems which may have come up are handled, or if necessary more explanations are provided for questions in the questionnaire and completed questionnaires are collected.

In this paper, some problems that confront a researcher while collecting socioeconomic data in rural areas were discussed and some suggestions were made to help solve these problems. However, the variables with which the researcher has to deal in achieving his objective are so very diverse and multifarious that one can hardly develop a general methodology or enumerate all the problems. A technique which has been fruitful in one case may turn out to be disastrous in another even similar type of case.

But by opening the discussion on data collection in rural areas researchers can benefit from each other's experience and in turn have solutions for more and more problems that one may face during the data collection in rural areas.

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The Meaning of Food in an Italian Community

by

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This research was conducted as part of the Louisiana Agricultural Experiment Station Project 1872, "Sociocultural Factors Associated with Behavior Related to Food: Subcultural Comparisons."

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Introduction

Several writers have noted that the connotative meaning of a given food is much more related to acceptance of the food than is the denotative meaning. For example, fried chicken is much more than poultry flesh dipped in a batter and cooked in fat. Fried chicken at an earlier period in the South was often associated with company and therefore highly valued. Fried chicken today, is likely to be associated with a supper from a fast-food chain and the cook's night off. Although certain groups of people still rank fried chicken as a high status food, others view it as something to pick up on the way home from work that is not particularly appetizing, but is "filling." Many other concepts have been identified as being associated with food. Pumpian-Mindlin (1954), Burgess and Dean (1962), and Lowenberg et. al. (1968) have reported that particular foods carry meanings of status for selected groups. Pyke (1968), Lee (1957), DeGarine (1971), Steelman (1974) and Pilgrim (1975) have all commented on other connotative meanings of food. Among these meanings are cost, creativity, reward, tradition, convenience and sociability. Specific food taboos have been discussed by Graufard (1943), Jensen (1953) and Cassell (1957).

Lee (1957), Blair (1966), and Suchman (1968) have noted that the meaning of food generally comes out of the culture or subculture that the individual is socialized into. In spite of available literature that calls attention to the relationship between culture or subculture and the meaning of food, little systematic research on food meanings has been reported. Bennet, Smith and Passin (1941), Lewin (1948), and Cassel (1957) have reported limited research in this area. Fewster et. al. (1973) developed a semantic differential for measuring the meaning of selected foods to a small sample of respondents. Steelman (1974) reported subcultural differences in foods associated with selected concepts.

Knowledge of the meaning of food to a given subcultural group should be particularly helpful to nutritionists and others who are interested in improving the quality of diets of selected groups of people. Many nutrition programs have been doomed to failure because program planners have failed to take into account the connatative meaning of foods for specific groups of people. Although much concern has been expressed and much research has gone into developing techniques for assessing the quality of diets, little effort has been spent on developing techniques for determining the meaning that specific dietary patterns have for given subcultures. A major purpose of the research reported in this paper was to develop a procedure for determining the dominant patterns of beliefs and feelings about food held by a specific subculture.

Methodology

Sample. A sample of 52 homemakers from a small town of Italian heritage was interviewed. The study community is known for its current promotion of its Italian culture. A two-day Italian festival is sponsored each year by the Italian American Association. Italian food, music, dancing and speakers are featured events. Italian has been approved as a language to be taught in the public school. Some of the respondents came from Italy as small children since the major Italian migration to this community was between 1900 and 1910.

The sampling frame was a list of 280 Italian families obtained from the telephone directory. A leader in the Italian American Association marked all the Italian names that he thought met the sample description. Only women with a child and/or husband were interviewed. A few of the women interviewed were not of Italian descent, but all their husbands were Italian or they had Italian ancestors. Omission of families without a phone or listed numbers may have slightly biased the sample. However, the informant believed that most Italians in the community had phones.

Dependent variables. Data on the importance of the connotative meanings of food were collected on eight proposed dimensions of meaning derived from the literature and prior work of Steelman (1974 and 1976). These eight dimensions were: convenience, frugality, sociability, concern for social status, pleasure of eating, health, creativity, and propensity to change. The dependent variables were measured by the semantic differential, a technique developed by Osgood, Suci and Tannenbaum (1957).

The semantic differential consisted of twenty-four "scales" three for each of the eight aspects of meaning. (See Table 1) Each of these scales consisted of a pair of bipolar phrases and each was a seven point scale. For example:

Hard to prepare ___ ___ ___ ___ ___ ___ ___ Easy to prepare

The semantic differential was given to each respondent and she was asked to check the position on each scale that best corresponded to her belief. For example, if she felt that a particular food was very hard to prepare, she was instructed to check the position closest to that phrase. If she felt that the food was neither easy nor hard to prepare, the middle position was available, and so forth.

The items evaluated were all the foods consumed by that individual in the twenty-four hours prior to the interview as determined by a twenty-four hour dietary recall. The use of foods selected and eaten by the respondents is a major advantage of this research over prior reported research. In the Fewster et.al. (1973) research, the semantic differential was applied to a list of selected foods instead of foods actually consumed by the respondent. The meaning of food actually selected and eaten by a sample of respondents should give clues to what meanings prevail in a given subcultural group.

Each of the positions on a scale was assigned a value from 1 to 7. The scores for each scale were averaged across the day's diet for each individual. The average scores for the three scales corresponding to each concept (i.e., convenience) were subjected to separate principal component factor analyses to determine if the scores of the three scales for each concept were related. Results from these analyses indicated that the three scales measuring each concept were strongly related. Factor loadings ranged from 0.568 to 0.934.

In an attempt to determine if the respondents in this community organize their beliefs about food into the eight distinct concepts proposed by the researchers, the mean scores for the total set of 24 scales

Table 1. Scales for the Eight Concepts under Study

Pleasure of eating	
I like this food	I do not like this food
Not tasty	Tasty
Most people do not like this	Most people like this food
Propensity to change	
This food is new to me	Not new
I just started eating this	I have eaten this a long time
My mother served this	My mother did not serve this
Convenience	
Hard to prepare	Easy to prepare
Serving this food saves time	Does not save time
This takes a long time to prepare	This does not take a long time to prepare
Frugality (Cost)	
Low cost	High cost
Poor food buy	Good food buy
Expensive	Not expensive
Concern for status	
Not good enough for guests	Good enough for guests
Plain	Fancy
Proud to serve this	Embarrassed to serve this
Creativity	
I prepared this a new way	I prepared this in an old way
I enjoy preparing this food	I do not enjoy preparing this
I prepare this differently from most people	I do not prepare this differently from most
Sociability	
Friends like it	Friends do not like it
I serve this at family gatherings	I do not serve this at family gatherings
Serve to friends	Do not serve to friends
Health	
High nutritive value	Low nutritive value
Needed for good health	Not needed for good health
Good for you	Not good for you

were subjected to factor analysis with varimax orthogonal rotation. Scales were assigned to the factor on which they loaded the highest. Factors were assigned names suitable to the scales included in the factor and a mean score was calculated for each subject for the items assigned to each factor.

Independent variables. The independent variables included in the analyses were age, education, and employment status for each of the women and annual family income and family size for each household. Age, education, income, and family size were treated as continuous variables and employment status as a discrete variable (employed/unemployed).

Analysis of Data. The mean score for each factor as a dependent variable was subjected to analysis of variance by the independent variables of employment status, age, number of people in the household, income, and education. In order to determine which meanings, if any, were more salient to the respondents, the factors were ranked according to degree of intensity by using difference-from-the-midpoint scores. Duncan's T Test procedure was used to test for significant differences between each pair of factors.

Results and Discussion

Results of the Factor Analysis. Results of the varimax rotated factor analysis of the 24 scales demonstrated that the 8 proposed factors did not fit the pattern of food beliefs of the community. Only six factors were identified: sociability; tradition; appropriateness of food; health-pleasure of eating; creativity; and cost-convenience. The percent of variation explained by these six factors was 72.6, indicating that these scales contribute substantially to understanding patterns of food beliefs for these respondents. (See Table 2)

The Sociability factor dealt with the entertainment and sharing aspects of food. The homemakers connected the three scales originally thought to measure sociability with an enjoyment of food preparation and a sense of pride in serving food. Conversations with respondents added credibility to this finding. Many reported being proud to serve whatever they had to a guest. Most said that they enjoyed preparing food and that this was an important aspect of their lives.

The second factor loaded highly with scales on the health dimension and the pleasure of eating concept, forming the factor Health-Pleasure of eating. The scale "good food buy" originally thought to be measuring attitude toward the cost of food was in fact tapping their beliefs on a health dimension, i.e., a poor food buy was a food they did not consider nutritious. The fact that they associated the idea of health with the pleasure of eating is an interesting finding. It is assumed that they believed the foods that they liked were also good for them. Obviously their perceptions of nutritious foods were not always accurate.

The third factor, named Cost-Convenience, suggests that respondents associated foods that are easy to prepare with foods that are more costly. It should be noted that this factor contains the three scales originally believed to comprise the convenience dimension and two of the three from the cost dimension. (The third "cost" scale, "good food buy" was discussed above.) Respondents reported that they often saved money by preparing foods that take longer to cook. They said they served "quick foods" but these were most costly.

The fourth factor, labeled Appropriateness of food, seemed to measure attitudes related to the appropriateness of given foods for use in social situations. Serving a food prepared in a new way was seen as

Table 2. Factors Identified with Principal Component Factor Analysis with Varimax Rotation

Factors/Scales	Loadings F1	F2	F3	F4	F5	F6
Sociability						
Friends like it	.589	.288	-.036	.195	-.332	.389
Enjoy preparing	.641	.451	.090	.315	-.274	-.182
Family gathering	.752	.021	-.079	-.114	-.067	.175
Proud to serve	.660	.388	.102	.344	-.146	-.154
Serve to friends	.827	.100	-.031	.251	-.138	-.137
Health/Pleasure						
Like this food	.220	.624	.073	.196	-.207	-.152
High nutritive	.025	.860	.080	.105	-.068	.041
Poor food buy	-.207	-.675	-.304	-.241	.319	-.007
Needed gd. health	.092	.835	-.031	-.085	.002	.057
Good for you	.194	.854	.092	.014	.003	.015
Cost/Conv.						
Easy to prepare	.065	-.238	.665	.225	-.399	-.133
High cost	.244	-.303	-.750	.292	-.041	.197
Saves time	.293	.182	.690	.180	.120	.195
Expensive	.138	-.283	-.794	.113	-.178	.235
Not long to prepare	.048	-.053	.787	.357	-.038	-.232
Appropriate						
Not good for guests	-.292	-.169	-.066	-.743	-.120	.044
New way	.381	.184	-.110	-.473	.453	.296
Tasty	-.017	.545	.108	.594	-.061	.004
Most people like	.226	.089	.046	.673	-.118	-.301
Tradition						
Not new	-.046	-.050	-.301	.244	.565	.311
Eaten long time	-.172	-.197	.050	.093	.820	-.054
Mother served	-.303	-.158	.127	-.038	.725	-.057
Creativity						
Fancy	-.165	-.015	-.178	-.059	-.082	.837
Different from most people	.097	.084	-.228	-.393	.180	.739

appropriate, as were foods viewed by the hostess as "tasty" and those which she believed most people like.

Tradition was the name given to factor 5. On this factor, the scales which referred to familiar foods loaded highly. One of the scales, "prepared in a new way" also loaded on the Appropriateness of Food factor. The loading on factor 5 was negative while the loading on factor 4 was positive. This means that the opposite ends of the scale carry very different meanings for the respondents. If they answered that they prepared the food in a new way, they were viewing the food as special and appropriate for guests. If they reported the food as prepared in an old way, they were responding to the tradition dimension and a lack of change in their diet.

Creativity aspects were measured with factor 6. Fancy and I prepare this differently from most people loaded highly on this factor. It must be remembered that few people reported their food to be either fancy or prepared differently. There was little emphasis on trying new recipes or cooking anything unfamiliar.

Results of Analysis of Variance. Even though these six factors are believed to be more representative of the study sample than were the eight factors proposed in the research design, results of analyses of variance for each of the six patterns revealed no significant differences by the independent variables of age, income, education, employment status and number of people in the household. These findings suggest that the cultural homogeneity of the sample was more related to the beliefs about food than were socio-economic variables.

Results from Ranking of Factors by Saliency. Responses at either extreme of a scale were considered to be representative of a strongly held belief in a particular concept. For this reason, a mean difference from the midpoint was calculated for each factor in order to rank the factors by degree of salience to the respondents. The results of this calculation (See Table 3) indicate that the strongest responses were given to the scales comprising the tradition factor. This strong sense of tradition in regard to food was apparent during the interview process. As was shown by the answers to particular scales, most women reported eating traditional foods prepared in traditional ways. The most animated conversations came when the women discussed foods that they remembered from their childhood. Most women said that they "don't bother" with preparing new and different foods, they just "stick to what they know." They also reported that their families prefer it this way.

Table 3. Rank-ordering of Food Meaning Factors by Mean Differences from the Midpoint

Factor	Mean Difference From Midpoint	Results of Duncan's T Test Significantly different from
Tradition (5)	2.142	2^1, 6^1, 3^1
Appropriateness of food (4)	2.058	2^2, 6^1, 3^1
sociability (1)	2.006	6^2, 3^1
Health, Pleasure of eating (2)	1.569	5^1, 4^2,
Creativity (6)	1.414	5^1, 4^1, 1^2
Cost, Convenience (3)	1.242	5^1, 4^1, 1^1

[1] Probability = .01

[2] Probability = .05

Second in rank was factor 4, Appropriateness of food. People in this community have a strong tradition of entertaining and food is always part of this behavior. Some women volunteered that certain foods served to the family were simple not good enough to serve to a guest. However, others believed that food consumed by their family is good enough for "company" also.

Factor 1, Sociability, followed closely behind Appropriateness of food for social situations. The relationship of these two factors to each other was apparent. Respondents reported that they often had "company for dinner" and enjoyed socializing over food. Interviewers were often offered "something to drink" during an interview.

Health-pleasure of eating, factor 2, ranked fourth. This factor was significantly less important than the first two factors to the women interviewed. This is not to say that the pleasure of eating was unimportant to the women. They often reported that they "enjoy eating" and "eating is one of the real pleasures in life." It was clear, however, that the connection between health and pleasure of eating was strong, since many said they believe what they like is good for them.

Creativity was ranked fifth and Cost-convenience ranked sixth. This indicates that the concepts associated with these factors were comparatively less important in the selection of food by the women included in this study. These women did not use new styles of food preparation as a creative outlet. In terms of cost, having the foods they want (and are used to) was viewed as a necessity and they reported spending what they needed to in order to obtain these foods.

Results of the Duncan's T Tests for differences between the mean midpoint scores for each pair of factors indicate that certain factors were significantly more salient to the respondents than were others. (See Table 3) The first three concepts of tradition, appropriateness of food and sociability were significantly more salient to the respondents than were the concepts of health-pleasure of eating, creativity, and cost-convenience.

Conclusions. Results of this study indicate that this sample of Italian homemakers had a particular arrangement of beliefs concerning food. For this community, tradition was the most important concept related to food actually eaten by the respondents. Sociability aspects of food ranked second behind tradition. Less important than the preceding factors were health-pleasure of eating; creativity; and cost-convenience factors in that order. Analyses of variance indicated that differences in scores for each of the factors do not vary by age, income, education, employment status, or size of household.

These findings are consistent with other literature concerning Italians. P. Williams (1938) pointed to the importance of tradition and wrote that Italians would often pay a high price to obtain a familiar dish. L. Williams (1951) who studied the same rural community under investigation here found that the food patterns brought from Europe had not substantially changed since the arrival of the immigrants in the early 1900's. It appears that although some foods may have changed, the belief in tradition is just as strong. Gambino and Amfitheatrof referred to the sociability aspects of food use and they also reported that although an abundance of food was seen as a symbol of family well-being, ostentation was frowned upon. All of these observations have been supported by this investigation. Tradition was the most important of the factors and the two factors concerned with sharing food followed closely behind. The idea of ostentation or having foods that are fancy or expensive seems to be suppressed. No social status factors emerged as had been predicted. The Cost factor (factor 3) was last in rank, and very few respondents described any of their food as "fancy."

The pattern of this community's meanings for food differs from the patterns identified by such researchers as Bennett, Smith, and Passin and Lewin. It also differs from the patterns identified by Steelman in previous research. This gives some support to the belief that this group exhibits a unique pattern of food meanings. Further research will compare the pattern of this community with those of other communities in Louisiana, where it is believed that other unique arrangements will be encountered.

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VALUES IN A RURAL ITALIAN COMMUNITY[1]

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Introduction

Sociologists have long been concerned with ethnic groups in American society because these groups do not set the dominant life style or control the privileges and power in any given society. Identification with and membership in an ethnic group has far-reaching effects in that life opportunities may be limited and feelings of well-being may be affected.

For many years it was believed that ethnic differences would disappear after a few generations in the United States. Indeed, most ethnic groups seem to have learned the ways of the dominant American culture. However, as Glazer and Moynihan (1970) have pointed out, ethnicity has evolved and persisted beyond the expectations of early scholars. Glazer and Moynihan (1970) hypothesized three reasons for increasing importance of ethnicity in recent years: (1) ethnic identities have replaced occupational identities; (2) one's ethnic identity is associated with events in America rather than those in the home country; and (3) ethnic groups have become political, economic and cultural interest groups to replace the declining religiosity of recent generations. To what extent have various ethnic groups become a part of the American "melting pot" is unknown, however.

"Ethnicity is usually displayed in the values, attitudes, life styles, customs, rituals, and personality types of individuals who identify with particular ethnic groups." (Mindel and Habenstein 1976). The degree to which the value systems of an ethnic group coincide with those of the dominant culture should serve as one major indicator of ethnic group integration with the dominant culture. Robin Williams (1970) has pointed out that "...societies may be characterized by value distributions and by

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the arrangements of subsystems of values in different positions of the social structure." Williams (1970) defined values as "those conceptions of desirable states of affairs that are utilized in selective conduct as criteria for preference or choice or as justifications for proposed or actual behavior." Since values serve as a basis for many decisions, it seems that a study of the basic values of a group would give some insights into the problems a group might face when dealing with the dominant society. Additionally, value patterns may give clues to why ethnic groups survive in a dominant culture.

The purpose of this paper is to describe the dominant values of Italian women in a rural Italian community. A comparison is given of the findings from this research to those of the North Carolina statewide sample of Christenson and Yang (1976).

Methodology

Sample

The study community was a predominantly Italian rural town with a total population of 1,770. This community is recognized for its current promotion of its Italian heritage. There is an active Italian association that sponsors an annual two-day Italian festival. Features of the festival include Italian food, music, dancing, speakers, etc. The mayor and other community leaders are generally Italian. Italian is approved to be taught in the public schools. The community has also approved plans to change the storefronts to resemble an Italian village. The major migration of Italians to this area was between 1900 and 1910 which means some of the respondents came as young children from Italy. The sampling frame for the study was Italian names in the phone directory. A leader in the Italian Association marked the Italian names in the phone directory and a simple random sample with alternates were drawn to obtain 100 interviews. The refusal rate was approximately 15 percent.

Due to other objectives of the project, the respondents were responsible women with a child and/or husband residing in the household.

Independent Variables

Christenson (1976) and others have generally used education, income, and race as variables believed to be associated with differing value orientations. Annual family income level and number of school years completed by the respondent were two of the three variables used in these data analyses. A third variable, degree of Italian, was operationalized as follows. The respondents were asked whether they, their two parents, and their four grandparents were born in Italy. A score of one (1) was given for each of the three generations to make a total possible score of 3 for the respondent. The respondent received 1 point if she was born in Italy, 0.5 points for each parent born in Italy and 0.25 points for each grandparent born in Italy. The same information was obtained for her spouse and added to her score, which gave a total possible range of scores of 0-6. We found that age was correlated with the total score at .82. Therefore, any differences due to degree Italian may be an age difference. It is impossible to satisfactorily partial out the effects of the two variables.

Dependent Variable

Fourteen value systems, as described by Robin Williams (1970) and as operationalized by Christenson and Yang (1976), were used as the dependent variables. (See Table 1 in the Results Section). The terminology was the same as that used by Christenson and Yang but the scoring was different. Christenson and Yang used a scale of 1-4. A scale of 1-10 was used in this study in an attempt to improve the level of measurement. We found in pretesting that when the respondents were asked to rank the values after they had assigned scores that their rankings were often inconsistent with the original scores. The respondents were allowed to change the original scores in an attempt to improve the reliability of the procedure. An additional replication of Christenson's work was to ask the respondents to list the three most important and three least important value systems to them. The percentage of respondents who placed a value in either category was calculated and compared to the findings of Christenson.

Analysis of Data

Stepwise regression was applied to each of the value scores by the three independent variables of education, income and degree Italian.

A comparison of the percentage of respondents who listed a value as one of the three most important or one of the three least important values to the percentages reported by Christenson and Yang (1976) was made using one-way Chi-square analysis. The percentage reported by Christenson and Yang was treated as the expected value and percentage found in this study was treated as the observed value.

Results & Discussion

Results of Regression Analysis

Results of the stepwise regression analyses for the three independent variables are shown in Table 1. Only five significant F values were found for the 14 values. Education level was found to be significantly related to only one value, honesty, and the relationship was negative. Income was positively associated with democracy and negatively related to practicality. Degree Italian was negatively associated with personal freedom and positively associated with individuality. An interpretation of these latter findings will be discussed in the next section where comparisons are made between the N.C. sample and the Italian sample. In actuality, there was little variance among the responses in this aspect of the research, as well as in other parts of the project. The women in this community seem to share a common set of values that is ingrained in the subculture to such an extent that differences due to socio-economic characteristics are difficult to determine.

Comparison of an Italian Rural Community to North Carolina Statewide Sample

Findings from the statewide sample of Christenson and Yang (1976) were compared for the most important and least important values. Although it cannot be assumed that the North Carolina sample is representative of the total American culture, it can reasonably be assumed that it is more typical than is the Italian sample. The North Carolina sample differed in several respects: urban respondents, as well as rural were represented; males and females; and nonwhites and whites were included in the sample. We acknowledge that these variables could be the basis of the found differences. Only 14 percent of the North Carolina sample was non-white and only 21 percent of the respondents was female. However, since comparable North Carolina data is published, it seems worthwhile to make comparisons. As will be discussed later, literature on the Italian Americans supports the findings of this research.

As can be seen in Table 2, no significant differences were found between the North Carolina sample and the Italian community for the relative importance of five values: patriotism, work, practicality-efficiency, political democracy, and leisure. Both groups place moderate rankings on patriotism, work, practicality-efficiency, and political democracy and relatively low evaluations were given to leisure by both groups. The similar values on patriotism and democracy suggest that the Italian respondents adhere to the ideals of the national government. This group also shares

TABLE 1

Results of Stepwise Regression Analyses for Each Value System

	Beta	Std. Error B	F
Honesty			
Education	.234	.013	3.27 *
Income	.066	.003	0.307
Italian	.060	.035	0.240
Democracy			
Income	.343	.012	8.936**
Education	.084	.054	0.441
Italian	.048	.151	0.165
Helping Others			
Income	.089	.008	0.557
Italian	.010	.098	0.719
Education	.082	.035	0.396
Racial Equality			
Income	.182	.019	2.407
Education	.129	.085	1.007
Italian	.051	.235	0.177
Sexual Equality			
Education	.174	.091	1.774
Italian	.081	.253	0.431
Income	.028	.021	0.056
Individual Freedom			
Italian	-.285	.138	5.974**
Education	.119	.050	0.932
Income	.021	.011	0.036
Progress			
Italian	-.093	.112	0.557
Education	-.075	.040	0.324
Income	.036	.009	0.088
Work	F level insufficient for computation		
Material Comfort			
Income	-.107	.015	0.326
Italian	.094	.188	0.587
Education	.063	.068	0.235

TABLE 1 (con't)

Results of Stepwise Regression Analyses for Each Value System

	Beta	Std. Error B	F
Practicality			
Income	-.248	.009	4.459**
Italian	-.042	.111	0.118
Education	.018	.040	0.020
Achievement			
Italian	.144	.135	1.378
Education	.061	.046	0.250
Income	insufficient for computation		
Leisure			
Italian	-.037	.179	.090
Income	-.026	.015	.046
Education	-.014	.065	.011
Individuality			
Italian	.228	.165	3.570*
Income	.165	.014	2.014
Education	-.084	.059	0.443
Patriotism			
Income	.107	.010	0.805
Italian	.101	.122	0.668
Education	.089	.044	0.461

*significant at .05 level of probability
**significant at .01 level of probability

the economic values of work, practicality and leisure with the more dominant culture.

The most dramatic difference between the two groups was on the helping others value. Sixty percent of the Italians ranked this value as one of the most important, whereas, 21 percent of the N.C. respondents rated it this highly. Part of this difference may be due to the sexual composition of the sample (all females vs. mixed sex sample) in that females are more often socialized to help others than are males. Even though this is believed to be generally true, it is probably even more typical of the Italian female than more acculturated females. In their review of the Italian family, Femminella and Quadagno (1976) have pointed out "...the ideal of womanhood included not only bearing children and knowing household skills but having those supportive qualities that enable a woman to take her place as the center of the family."

Although the women are socialized to be supportive, Femminella and Quadagno (1976), reported that many mutual benefit societies were established by Italian immigrants at the time of the major migration in the early 1900's. This suggests that the value is culturally related as well as sex related. Apparently this value has held through three generations.

Honesty was the most highly ranked value by both groups, even though the Italians ranked honesty significantly higher than did the North Carolina respondents. Perlin and Kohn (1966), found that honesty was the trait considered most desirable in children by American and Italian parents with no differences between the two samples. Perhaps the differences found in this study can be attributed to the gemeinshaft nature of the Italian community where everyone knows everyone else, and one's reputation is more likely based on how good a person you are rather than on your occupational achievement. The negative relationship of education to honesty reported in the previous section also supports this conclusion.

Achievement and material comfort were both valued less by the Italians than by the N.C. respondents. Again, the writings of Femminella and Quadagno (1976) support this finding. They report that the pride that comes from hard work is a higher good than money and that hard physical work was to be performed with a sense of dignity. Another mark of achievement, formal education, was viewed as antithetical to proper training for manhood or womanhood (Gambino: 1974). Rosen (1959) found that Italian Americans placed relatively low value on independence and achievement training. We also found from other data in this project that a concern for status differences was not dominant in the responses of the women.

Table 2. A Comparison of An Italian Rural Community's Most Important And Least Important Values To Those of a North Carolina Statewide Sample.

Value	One of Three Least Important			One of Three Least Important		
	N. Caro. %	Ital. %	X^2	N. Caro. %	Ital. %	X^2
Honesty	1	0	1.0*	66	83	12.88*
Helping Others	6	0	6.38	21	60	91.68*
Personal Freedom	2	9	5.98*	49	29	16.00*
Patriotism	6	3	1.60	25	28	0.48
Work	4	3	0.26	31	25	1.68
Individualism	34	33	0.04	6	12	6.38*
Practicality/Efficiency	8	11	1.22	16	11	1.86
Progress	18	10	4.34*	4	11	12.76*
Achievement	12	8	2.21	26	9	15.02*
Political Democracy	17	16	0.07	10	6	1.78
Material Comfort	26	44	16.84*	7	6	0.15
Leisure	36	42	1.56	7	5	0.61
Racial Equality	36	33	0.39	9	2	5.98*
Sexual Equality	56	40	10.39*	2	1	0.51

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*X^2 significant at .05 level of probability.

This finding is particularly interesting because Luther Williams (1951) reported that the old Italians in this community said that all Italians were the same (poor) and that class distinctions emerged with the second generation. Today, emphasis seems to again be on whether one is Italian or not with high status being assigned to Italian.

Progress, a concept related to achievement, was viewed more positively by the Italians than by the larger group. This findings is possibly related to the decision of the immigrants to leave their poverty situation and seek a better life in a new world. These people are probably much more aware of the progress they have made and of the impact on their families than are the N.C. residents who generally have a longer history in the U.S.

The seemingly conflicting finding that the Italians value personal freedom less than the other group and value individualism more is explained by the norm recognized by Femminella and Quadagno (1976), "as long as you don't interfere with the established institutions you can do as you please." The family is the dominant established institution and the individual is expected to give up his personal freedom for the good of the family. Femminella and Quadagno (1976) attribute much of the development of Greenwhich village and other similar type areas to the Italian's acceptance of others' individualism. The significant relationship of "degree Italian" to these two values as reported in the previous section also supports these findings.

The differences in racial equality between the two groups is probably due to the inclusion of Blacks in the North Carolina sample. Williams (1951) reported that the Italians were as prejudiced toward Negroes as were the non-Italians in this community.

Some of the differences in the significance placed on sexual equality is probably due to the total female Italian sample and to the time differential in the two pieces of research. The Italian sample was interviewed at a time when an emphasis on women's liberation was much more dominant in the total society. However, Femminella and Quadagno (1976) have attributed significant status to the role of the woman in the Italian household. Williams (1951) also reported that the Italian women were responsible for managing money and in the upper classes the woman was equal in authority to the husband, even though the lower classes adhered to a patriarchal authority pattern in 1951.

Summary and Conclusions

A comparison of the relative importance of selected values to women in a predominantly Italian rural community to those of a statewide sample from North Carolina revealed some major differences as well as similarities. Similarities were found toward two political values, patriotism and democracy. A complex of personal values (work, practicality, and leisure) suggest that the value complexes necessary for economic survival are also shared with the dominant culture.

The Italian women varied from the North Carolina sample on values related to the behavior and rights of individuals. Honesty, helping others, individualism, and sexual equality were more important to the Italians and material comfort, achievement and personal freedom were more important to the North Carolina respondents. These value differences undoubtedly contribute to holding the subculture together in that individuals are obligated to remain true and to help others and to not set themselves apart through status differences or by asserting independence from the group. The family is the primary institutional unit that holds the group together, even though the Catholic religion also supports cohesiveness of the group. The seemingly conflict between individualism and personal freedom was discussed in the results section, but it can be interpreted that it is OK to be different by being Italian, but it is not OK to quit being Italian.

The total set of values give insights into how an ethnic group may survive in a dominant culture. They accept the political and economic values of the dominant culture, while maintaining close social control of the behavior that would isolate members from the ethnic group.

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"FOWL WORK AND OFFAL ACTIVITIES:" A PILOT STUDY OF MORAL AND DISAFFECTION AMONG POULTRY PROCESSING EMPLOYEES*

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INTRODUCTION

The sociology or work and occupations has traditionally addressed urban vocations and work systems and the attendant literature is relatively silent on rural industries or work systems other than agriculture. As part of an on-going research program conducted at this institution, to explore rural occupations and industries, a pilot study of poultry processing workers was conducted. Poultry processing was selected for study for several reasons. The labor force of this industry has an inordinately high proportion of females and minority group members, and in view of the fact that most of the sociological studies of industrial workers have focused on white, male workers, it was felt that this research would be sociologically productive. Poultry processing work also appears to be obstensibly disagreeable and to have constituent working conditions that may be extraordinarily disaffective. This study, then, offered the opportunity to explore the means by which poultry processing employees accommodate themselves to the intrinsic dimensions of their job and to such working conditions, as well as examine the processes of morale maintenance and the rationalization mechanisms used in coping with work. Finally, poultry processing represented an instance of rural industry as opposed to urban industry. Although many corporations locate their subsidiary plants in small towns or even in open country, they generally continue to reflect the urban industry model. Much of the work force may be imported or transferred from urban areas. Supplies and raw materials may well be obtained from urban industrial sources. Thus, raw materials, work force, process, product, and even the culture of the plant itself may well have an urban progenesis. The true rural industry such as

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***The order of the co-authorship is alphabetical and is not meant to reflect differential contribution to the study.*

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[1] For a more detailed exposition of this program see: Bryant, Clifton D., William E. Snizek and Donald J. Shoemaker, "Ecological Work and Careers: An Overview of a Research Program for the Sociological Study of Environmentally-Related Occupational Specialties," Man-Environment Systems 6:107-119, 1976.

poultry processing is largely integral to the rural context and therefore would differ substantially in these respects.

Poultry processing may well represent an example of a work system that closely approximates our operational notion of a rural industry. Since the mid-twentieth century when technology and science combined with agriculture to create the modern mass produced chicken, the poultry industry has, in most instances, effected as an industrial model, that is a ". . . six-stage, vertically coordinated operation, with the family farmer as only one link in the chain."[2] The various components of the industry are systemically linked and are generally located in rural areas or small towns and the industry is, accordingly, integrated with the farm. The work force is generally local and thus rural, often even into the supervisory levels. Poultry processing, although it is highly mechanized, basically derives from a rural process, originally involving all handwork. In contrast to urban industries, poultry processing can claim raw materials, work force, process, product, predominate value system, and plant culture as being of rural origin.

This pilot study, then, sought to study a work system with a set of relatively unique characteristics. More specifically it sought to determine the parameters of socio-economic origin and characteristics of the employees of this industry and their changes over time. It also explored the career patterns and contingencies of these occupationally rural practitioners. Additionally it probed the characteristic work satisfaction and discontents of the workers and the circumstances precipitating possible disaffection.

The present investigation is a pilot study and therefore represents a preliminary, exploratory attempt to identify those issues and variables deserving of more in-depth, larger scale attention in the future.

POULTRY PROCESSING AS DISAFFECTIVE WORK

Previous research has generally shown industrial work to be disaffective to the workers.[3] Mass production with its assembly line tempo is routine to the point of monotony. Its redundancy is intellectually eroding, and the long hours of human effort reduced to machine-like simplicity and efficiency is mentally enervating and not infrequently physically demanding. Even where noise, extreme temperature, or noxious working conditions in the plant are minimized, the lack of intrinsic gratification in industrial work has not infrequently proved to be disaffective to the worker to the point of pathological reaction. Studies have reported that some workers have developed psychosomatic illnesses, others have turned to coping devices such as alcohol and drugs. Yet others have turned their frustrations and aggressions on their work and sabotaged their machines and product.

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[2] Talbot, Ross B. The Chicken War: An International Trade Conflict between the United States and the European Economic Community, 1961-64. Ames (Iowa): Iowa State University Press, 1978, p. 6.

[3] The literature on industrial morale is voluminous but for one classic statement see Chinoy, Ely, Automobile Workers and the American Dream. Boston: Beacon Press, 1965.

Rural industries such as poultry processing, it was hypothesized, might well engender even more discontent among their workers, than among urban workers, because of additional discomforting working conditions that might exacerbate their disaffection. Poultry processing has an assembly-line tempo like urban industries, but the slaughtering of any animal tends to generate more unpleasant smells than in many industries. Poultry processing, of necessity involves the commodious use of water and thus there is an inevitable high degree of dampness and frequency of standing water constituent to this industrial process. The water used may have to be scalding to remove feathers or near-freezing in order to cool the carcasses of the birds. Extreme temperatures are, accordingly, encountered. Poultry must be handled, initially as live birds, often dirty and frequently defecating on those workers handling them. Finally, the birds must be slaughtered which involves killing on a mass scale with the attendant profusion of blood and gore. Even after the birds are dead, they must be eviscerated and the encounter with the viseral organs and offal would presumeably be aesthetically distasteful if not repugnant. Given the additional disagreeable working conditions of smell, extreme temperatures, dampness, and the necessity for working with blood, viseral organs and materials, and offal, it was expected that work dissatisfaction and morale problems would be endemic to the poultry industry. Accordingly, in addition to exploring the socio-economic characteristics and career patterns of poultry processing workers, the pilot study was to also be an effort to probe the parameters and precipitating circumstances of such probable work dissatisfaction and discontentment among poultry processing employees.

STUDY DESIGN

Research Questions and Objectives

The study focuses upon five job parameters of the poultry processing industry: 1) the organization of the work force in the work setting, 2) the personal and background characteristics of the work force, 3) career patterns of the work force, 4) job satisfaction and commitment, and 5) the individual and social effects of work in the plant upon the workers. Particular attention is directed toward two major sets of questions as they related to these five parameters. The first has to do with the sexual composition of the work force and differences between male and female employees. The second set of questions addresses the problem of how poultry processing workers accommodate themselves to a type of industrial work that is obstensibly disagreeable and to working conditions that appear to be inordinately disaffective.

The Sample

The cooperation of two poultry dressing plants in the Shenandoah Valley of Virginia was secured and a total sample of one-hundred production workers was drawn, fifty coming from each plant. The first plant, for purposes of anonymity is labeled "Valley Farm," and is located in a small town, rural area and employs a total of 490 workers, all of whom work one daytime shift. The workers at this plant come from a rather wide area of the rural countryside surrounding the plant location. The mangement of this plant takes a rather "folksy" and personalistically oriented approach towards its work force and the plant, as a whole, comes across as being rather low key when compared to the second plant in the sample. This plant, given the pseudonym "Central Town," employs a total of 1200 workers on two shifts. (To control for this difference only workers from the daytime shift were included in the sample). Central Town plant is located just outside of the major population center of the area in a bordering small town and draws its employees from this circumscribed area. The characteristics of these workers, however, do not appear to be different from those at the Valley Farm plant. The management at Central Town takes a much more distant and impersonal attitude towards its employees than is the case at Valley Farm and this, coupled with its location and larger size, makes it appear much more removed from its rural base than is actually the case.

The two plants included in our sample are two of the one-hundred largest such operations in the nation. Central Town plant is the largest poultry dressing plant in the nation and Valley Farm perhaps falls within the twenty-five largest operations. The size of the plants included in our sample allows us to examine rural, agriculturally related manufacturing/processing industries comparable in size and output to nonrural, non-agriculturally related industries. This is especially important for the analyses of career patterns and work satisfaction, for a major question being asked is whether it is the organization of the work place or the nature of the work and the manufactured/processed product that basically influences job satisfaction and job disaffection.

Within each plant there are seven major departments or clusters of work activities. These departments and activities correspond to the successive steps undertaken in dressing the birds. The first set of activities are picking, hanging, killing, and pinning. The live birds are "picked" from their cages, hung in shackles by their feet on a moving line by which they are taken to a "killing room," and then killed. At Central Town plant the killing was done exclusively by hand while at Valley Farm the killing was now being done through a partially mechanized procedure. After killing, the carcasses are moved along the line and dipped in scalding water and then taken through a device with rubber fingers to remove the feathers. A "pinner" then removes any feathers remaining on the carcass. It is worth noting that the picking and hanging and killing operations are specifically out of the sight of the other employees in the plant. Those further down the line can neither see nor hear the live birds and come into no contact with either the live birds or the process of killing the birds. It appears that this serves to insulate the other employees from the potentially more disturbing aspects of their work. The second set of activities are those in the eviscerating department. As the carcass is moved along the line employees in the plant remove, through successive steps, the viscerals. The largest number of workers are employed in this department, this process being rather labor intensive. The third department is cooling and chilling. At this point along the line the carcasses are dipped into ice-chilled water to reduce the body temperature. Workers in this department are responsible for keeping the cooling tanks supplied with ice. The next department employs workers who separate the poultry products according to gross size and/or inspect the carcasses for grading purposes. Next the carcass moves to the department employing the second largest number of workers, the cutting, boning, and trimming department. Here the poultry is prepared for packaging either as a whole bird or in pieces. Those employees in the packaging department then package the dressed poultry. From there the product moves

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on to be weighed and then either stored and/or routed and loaded for shipping. Another process representing an eighth step, further processing, is also done on a fairly regular basis at Central Town plant and at another location associated with Valley Farm. Workers in the further processing departments were not included in the sample, however.

The samples were drawn to include representative proportions of each production-line activity in the plants. The sampling procedure used was therefore stratified, random sampling.

The final analyses are based upon the response of 69 workers out of the original sample of 100. 47 workers from the sample of 50 at Valley Farm were included in the final analysis and 22 from the sample of 50 at Central Town were included. The skewed response rate from the two plants reflects the greater cooperation on the part of both workers and management at Valley Farm. While the skewed representation of the two plants makes comparisons between the two plants rather difficult, our analyses of the data indicate that the overall findings are not appreciably affected.

Data Collection

Each individual in the original sample was sent a written description and explanation of the study through the mails and was advised that he/she would be personally contacted at a later date by a member of the interview team to see if he/she would be willing to participate in the study. In addition, each plant published a periodic plant newsletter and agreed to print a story on the study to appear at the same time the contact letters were mailed out. The majority of those individuals who eventually agreed to participate in the study were interviewed in their homes by a single interviewer and were on the whole extremely cooperative and friendly.

The interviews were conducted from a structured schedule containing 52 open- and closed-ended questions. The average time of the interviews was approximately 90 minutes. The interview schedule was constructed to specifically assess information bearing upon the research objectives discussed earlier. Career histories were obtained and questions about family backgrounds, educational levels, and youthful aspirations were also included. The major sets of questions focused upon the workers' perceptions of their work experiences. Assessments of working conditions, and their own levels of work satisfaction and/or disaffection were obtained from various types of questions.

BACKGROUND, PERSONAL, AND WORK RELATED CHARACTERISTICS OF THE SAMPLE

Racial Composition of the Labor Force

Although preliminary investigations indicated that the poultry processing industry has a labor force composed of a rather large proportion of Blacks, the two plants in our sample employed a labor force that was almost exclusively white. The explanation for this lies in the fact that the area of Virginia in which the two plants are located has a very small Black population. We will be examining a labor force, then, that is composed of a white, rural or small town population.

Sexual Composition of the Labor Force

At both plants in the sample women make up approximately 75% of the production line work force. Preliminary investigations had indicated that the poultry industry employed a predominantly female labor force and the proportions of males and females in our sample are, indeed, representative of the industry as a whole. Several factors may help to explain why we find such a large number of women workers concentrated in this industry. First, as discussed earlier, the poultry processing industry is primarily located in rural areas and it appears that during the initial development of these plants the male population was still heavily involved in agriculturally related work. Women, as a residual labor force, therefore represented the major source of workers for this industry. The continued predominance of women in the poultry dressing labor force, in spite of the fact that the male population is no longer so heavily involved in agricultural activites, can be partially explained by two additional factors. It was indicated earlier that the salary level in the poultry processing industry is at a relatively low level. Men, having greater opportunities in the job market, would be expected to seek higher paying jobs while women, with restricted opportunities, would have less choice and therefore be forced to accept jobs with such low salary levels. In addition, it appears that because of the traditional pattern of female employment and because of the nature of the work, preparing poultry for eventual consumption, that work in poultry dressing plants has come to be defined primarily (though not exclusively) as "women's work." This may operate to make this a type of industrial work which is seen as being acceptable for women but, perhaps, less desirable or acceptable for men.

An examination of the job activities performed by the respondents revealed a pervasive pattern of sex segregation within the work force. The employees themselves were quite conscious of this and offered reasons why this might be so. While it would naturally be expected that women would outnumber men in each department because of their greater absolute numbers, it was found that women, in proportion to their absolute numbers, were overrepresented in some departments and underrepresented in others. As a matter of fact, there were two sets of activities that appeared to be the near exclusive domain of the male employees and were identified as such by the workers themselves: picking and live hanging, and weighing and shipping. Although some males were scattered along the processing line, these were activities that were for the most part carried out by females. Of these line activities three were identified - both from the objective data and from the point of view of the workers - as "women's jobs:" eviscerating, cutting, trimming, and boning, and packaging. The employees explained the segregation of activities into "men's jobs" and "women's jobs" with several different types of reasons. In regard to the "men's jobs" it was stated that men were required to do them because of strength requirements. In addition, respondents, both male and female, noted that it wasn't the place of women to be doing these jobs because, simply, they were men's jobs. In discussing the "women's jobs" the major response given was that men could do these jobs but should be doing, and were needed to do, other things - presumably picking and hanging and weighing and shipping. Another reason given was that these were "women's jobs" because they involved things women normally knew how to do and would ordinarily be doing in their roles as housekeepers - the preparation of meats for cooking and consumption. Additional responses to this and other sections of the interview, however, revealed that some of the women workers perceived the sex differentiation of work activities in a different light. These women indignantly stated that the women were given the worse jobs while the men were given the better jobs. They noted that while the women were typically tied to the line doing the messier jobs the men were able to take it easier, pace themselves more slowly, and stay cleaner. Some women also noted that the amount of lifting required of them when taking whole poultry carcasses off the line for packaging was not that different from the men doing the hanging and was, according to them, much more strenuous than the work required of some of the men in weighing and shipping. Two typical responses from women workers were:

1. Well ah- about the only thing I can see is the men and boys stand around doing nothing and the girls and women have to do the work. I don't like that. We see a lot of that.
2. The men down there don't do work. The women do the work and the men stand and watch. They get the job that they can stand around and goof off at and play around with the women.

Observations by the researchers did seem to validate some of the perceptions of these women. For example, women would be working rather rapidly on the line cutting and trimming and then packaging the dressed poultry. In the mean time men, who were not as tied to the pace of the line, would stand and wait until a fairly large number of packages were finished and then route them for weighing or box them. In addition, it should be noted that, although not included in our sample, supervisory positions were held predominantly by men. These positions were quite visible to the women employees and probably contributed to their perceptions of the men as "just standing around." Further observations also seemed to indicate that the jobs held by the males, in addition to the supervisory jobs, carried greater status and this may have contributed to the dissatisfaction of some of these women.

Turning to the effect of the segregation of work activities upon the male employees, it seems plausible that this differentiation serves as a major mechanism by which the male employees can maintain their sense of masculinity. Given that these men are employes in a rather low prestige occupation, receiving relatively poor wages, and working in a female dominated (in numbers) industry, it might be expected that they would feel some threat to their sense of "masculine pride." However, being in jobs that are primarily closed to females and of a higher status than the jobs held by females, might work to offset these threats and anxieties and compensate the males in a way that allows them to maintain their "masculine pride."

Educational Background of the Labor Force

58% of the total sample have never received a high school degree and a sizable proportion of this group (one-third) never went beyond the eighth grade. Looking at the men and women separately we see that the educational achievements of the women are far superior to those of the men. 65% of the men never received a high school degree compared to 45% of the women and 30% of the men never went beyond the eighth grade compared to only 16% of the women.

The Social Context of the Work Place

As indicated in the next section, a good number of individuals indicated that a major factor in first bringing them to work at Valley or Central was the presence of friends or relatives. An examination of the data reveals that a large number of parents and spouses were employed in poultry processing. 19% of the fathers and 43% of the working mothers (13% of all mothers) worked in poultry dressing plants. Poultry dressing, then, represents a two generational work pattern for a good number of these workers. For those workers from families where farming was the basic means of livelihood, work in a poultry dressing plant would seem to represent the first step away from farming. Given the nature of the work, this step may represent one much more amenable than, say, work in other types of industrial enterprises. For women form farming backgrounds, work in poultry dressing may be perceived as essentially the same type of work done by their mothers.

Another finding in regard to the occupations of spouses reveals that a rather large number of spouses, 32%, also work in the poultry dressing industry (42% of the male workers' wives and 29% of the female workers' husbands).

Reasons for First Coming to Work at Valley Farm/Central Town

When asked why they first came to work at the poultry dressing plants 50% could give no reason other than that they needed a job or the money or that there were, simply, no other job choices. Another 9% spoke of their low skill levels or backgrounds precluding obtaining any other kind of work. Just under two-thirds of the workers, then, said that they came to their present jobs under a type of economic or situational pressure. 25% of the respondents said they came to work because of friends or relatives working there and another 16% mentioned convenience or location as leading them to come to work at the plants. Only 19% mentioned a positive feature about the job (the fact that it was full time, paid better, or was more preferable to what they were doing before) as being important to their coming to work at the plants. Males were much more likely to mention these positive reasons than were the females. Females were much more likely to mention coming to work because of the presence of friends or relatives and because of convenience or location. Males and females mentioned lack of choice and situational or economic exigency about equally.

These findings indicate that the poultry dressing workers in our sample end up in their occupations with very little choice or forethought. Coupled with the findings on occupational movement, to be discussed shortly, these observations would lead one to conclude that we are dealing with a group of workers only marginally committed to their particular occupations. Presumably these jobs are simply that, jobs which provide an income. Any job, apparently, could serve this economic function. When asked if they felt they would still be working at the poultry dressing plants in the future 75% indicated that they thought they would be. However, only slightly over 40% indicated that this would be because of free choice.

Career Histories

The median number of years worked in the plants for the total sample was six years. The median for males was five years and that for females seven years. The range of years worked was one to thirty-five years with the largest concentration of workers (14.5%) having worked one year or less.

The findings indicate a good deal of movement out of and then back into the plant work forces. 13% of the workers stated that they had left work and then come back. Of this 13%, 62% (8% of the total sample) had left and come back two or more times. One worker had left and then come back on as many as six different occasions.

Very few of the workers, 12%, had never worked at another place. 26% had worked at as many as four or more additional places in their work careers. 68% had worked in occupations other than the poultry dressing industry and 21% had worked in as many as four or more additional kinds of jobs. Limiting our attention to the last five years, 21% had worked at two or more additional places and 15% had worked at two or more additional kinds of jobs. There were indications that some of the workers had moved about from one poultry dressing plant in the area to the others.

The picture that emerges from these findings is that of a rather mobile and perhaps unstable labor force; work service in the plants is generally of a relatively short period of time. The workers appear willing to change jobs fairly often, sometimes leaving their jobs at the plants only to return at a later time. Again, the indications are that we are dealing with a work force of only limited commitment to their jobs. (Possible reasons for the turnover will be discussed later when questions of job satisfaction are examined).

MORALE AND INDICATORS OF DISSAFFECTION[4]

Worker Satisfaction and Dissatisfaction

When the data from the pilot study were tabulated and analyzed, a very surprising initial finding was that the majority of the workers in the sample articulated some degree of satisfaction with their work. More than 60% of these responding indicated that they were completely satisfied or generally satisified with their work. Another one-fifth of the respondents held a neutral view of their work.

The data were further analyzed by sex and no appreciable difference between the pattern of male responses and female responses was observed with the exception that a slightly larger percentage of females than did males, report that they were generally or completely dissatisfied with their work.

Inasmuch as the two plants, Farm Valley Plant and Central Town Plant, represented slightly different types of work settings and offered some difference in terms of conditions of work, the data on work satisfaction and dissaffection was bifurcated by plant and the results then analyzed. Overall there was no substantial variation between the two plants in terms of patterns of employee work attitudes.

Reasons for Satisfaction or Dissatisfaction

Probing the worker's rationale for their expressions of satisfaction or dissatisfaction with their job, however, the instrument sought specific considerations. A number of job factors were articulated by the respondents. Those workers expressing satisfaction with their work were more inclined to list factors such as "co-worker relations," "management relations or treatment by management," or "liking that kind of work or activities" as reasons for their satisfaction. Human relations concerns appear to be generally more important than other kinds of considerations in terms of job satisfaction. As one worker, for example, phrased it when asked what she particularly liked about her job:

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[4] For a detailed articulation of data and analysis from this project see Bryant, Clifton D., John P. King and Ken Perkins, Work and Career in Poultry Processing: A Pilot Study. Blacksburg (Va.): VPI&SU Research Division (in press).

> "The people I think more than anything - that I work with. That really helps out. I mean if you are working with somebody that you like. I just - I just like that kind of work."

Yet another replied to the same question:

> It's the company I work for I guess. They have always treated me good and everything.

On the other hand, those respondents who indicated dissatisfaction with their job were more prone to list general working conditions, or management relations or treatment by management.

What Did the Workers Particularly Like

The workers were further queried about the things that they particularly liked about their job, and their various responses were coded into a more limited number of categories. About 40% of all the respondents listed "people" or "co-worker relations" as the thing they liked most about the job. The next highest percentage category of responses were "job was easy" and "liked nothing best." In general, sociability with fellow workers appeared to be the most liked aspect of the work, and this sentiment was more often expressed by females than by males.

What Did the Workers Particularly Dislike

In response to this probe, more than 40% of the total indicated physical working conditions as the thing they particularly disliked. There was great variations in the sex pattern of this response, however. The majority of the females stressed physical working conditions as their major dislike, and primarily spoke of job load as the reason for listing this concern, and only secondarily mentioned temperature, wetness or aesthetic annoyances. The males, on the other hand, were more prone to list management relations as the aspect of the job they most disliked.

Perceptions of Ideal or Best Possible Job

Attempting to explore perceptions of job satisfaction from another perspective, when the workers were asked to describe the ideal or best possible job, the largest percentage of respondents, almost one-quarter, mentioned a people oriented or helping job. A somewhat larger percentage of females than males gave such a response, however. The next two most frequent responses involved a job with good physical working conditions (males were much more prone than females to give such an answer), and a job with good working conditions in terms of personal treatment. As in earlier questions, the dimension of sociability appears to be especially significant to the poultry processing workers.

Perceptions of Worst Possible Job

Turning the probe around, the workers were asked to describe the worst possible job. Approximately one-third of the respondents spoke of certain poultry processing jobs (especially eviscerating) as the worst possible job. Interestingly, however, approximately one-half of the males gave such a response and only a little more than one-quarter of the females. Eviscerating was predominately a female job and the males may have been reacting more to that aspect of the job than to the work itself. The next two most frequently mentioned concerns were a job which involved hard physical labor, and jobs with undesirable working conditions and supervision. A larger percentage of females listed housework as the worst kind of work than those that listed factory work or dirty work.

Most Desirable Job at Valley Farm Plant/Central Town Plant

Directing the probes more specifically to their own place of work, the respondents were asked to give their thoughts about the most desirable job where they worked. Including both sexes, the jobs listed as most desirable included jobs other than on the processing line, jobs in the packaging department, in the shipping department, and interestingly, in the eviserating department. One female respondent told us that her own job - hearts and livers - was the most desirable. When pressed further, she mentioned cutting out the gizzard stomachs as a desirable job. Her explanation was straight forward. She revealed that: "Well, I've done them (the jobs) and they seem like enjoyable ones. Just to look at some of the other jobs that are down there, they look harder than what I have. And I've done them and I can say that they are fairly easy." Males were more prone to list jobs in the shipping department, in the picking and hanging department, and jobs other than on the processing line (these were the jobs that most men held). Females were more prone to list jobs off the processing line, and jobs in the packaging and eviscerating departments (jobs in these two departments were usually held by women).

Why Jobs Desirable

When asked why these jobs were desirable, approximately one-third of the workers mentioned that they were easier, slower, and had less pressure.

It would appear that in general, the workers like the job they were in. Males especially seem to prefer jobs that were more typically held by males. The females preferred jobs that were less physically demanding, while the males were more concerned about clean jobs.

Least Desirable Job at Valley Farm Plant/Central Town Plant

When asked about the least desirable job at their place of work, approximately one-half mentioned work in the eviscerating department, and almost one-quarter listed the killing, hanging, pinning departments. The next least popular job was in the cutting, boning, trimming departments. When the responses were broken down by sex, a differential pattern was observed, however. A somewhat smaller percentage of the males than females mentioned eviscerating jobs as the least desirable, and almost double the number of males as females listed work in the killing, hanging, pinning department. Cutting and boning jobs were more often listed as least desirable than were jobs in the killing, hanging department. The largest number of females (one-third) mentioned "hard pressure" and the largest number of males listed "cleanliness", etc.

Summary

Although some of the response patterns were complex, if not conflicting, there does appear to be some general themes or indicators in the data.

Overall, the workers in this pilot study seemed relatively satisfied with their work. This appeared to be largely the result of rationalizing their low level of education and general lack of job skills on the one hand, and the gratification they derived from the opportunity to socialize and interact with other employees in the plant on the other hand. As one female employee succinctly expressed it:

> Well I guess in a way it is about as good as you gonna find for the education because the one thing about it is its mostly women there working. I'd say it's a pretty good place. There is a lot of women who work there and you are bound to find someone you can be

> friends with, and you have time to be sociable and get to know (them). Some other place you might not have time.

Where job dissatisfaction was evident, it seemed to stem largely from the pressure of speed and tempo on the line, in the case of women, and managerial pressure in the case of male workers.

Aesthetic concerns or physical annoyances such as smell, heat, dampness, etc. were apparently only minimally dissaffective. Workers frequently expressed the belief that cutting chickens, or using knives was something women would do at home and, therefore, there was no reason to dislike such activities in a job. There was some irritation on the part of women because they percieved that men had better jobs.

Even killing the birds could be viewed in a very positive light as one killer with 37 years experience confirmed:

> It is just as I said a while ago - you stop and look at that bird. Its such a simple little thing to make that little cut. You don't have to stand there and think about I'm killing this man or I'm burning this man or something like that. You're helping you're a doin like I just said. . . you are preparing a piece of delicious meat. I've been there so long - I know how to do it to the best of my ability and I try to do it to the best of my ability. Then in the sight of God I believe its alright. I believe he puts the food here for us to eat and I believe he meant for us to process it and eat it.

This was a pilot study and thus the beginning exploration in a larger inquiry into work satisfaction and dissatisfaction. The results so far, however, suggest to us, that even in the instance of the seemingly most unpleasant work situations, there are compensatory circumstances and mechanisms. In the case of our poultry processing employees, the male workers had jobs that were appropriate to their sex role, enjoyed relatively good salary levels, occupied work statuses higher than the female workers, and saw their jobs as both secure and a mark of work attainment in excess of their educational capability.

The women enjoyed the sociability of interaction with fellow workers, viewed their job as activities which were not unlike what they might naturally have performed as part of household duties, enjoyed the advantages of their additional family income, saw working as preferable to staying home alone. and conceivably, given the fact of their husband's low educational aspirational level, may well have seen work in the plant with its opportunity for interactions as a satisfactory means of compensating for a relatively mundane marital relationship.

Poultry work was a traditional type of work in this area, and in some cases, workers had parents, friends, and relatives who worked in the industry. In view of this and the rural context, such work was apparently not viewed as especially unpleasant. As one put it, "I like to work with chickens."

Whether such compensatory mechanisms are operating throughout the poultry industry or in the rural work systems in general, awaits further inquiry.

Section 15

Minutes of the 1979 Annual Meeting

RURAL SOCIOLOGY SECTION

# of the

SOUTHERN ASSOCIATION OF AGRICULTURAL SCIENTISTS

Minutes of the Annual Meeting

1979

The business meeting of the Rural Sociology Section was held on February 6, 8:00 p.m. to 9:45 p.m. at the Grand Hotel in New Orleans, LA. Harsha Mookherjee presided over the meeting.

Mookherjee, the president, complimented Leola Adams and Carol Bocan for staging the poster display on the 1890 students of agriculture in the Foyer of the Hotel.

The proposition of developing the Rural Sociology Section into a more formal organization was posed and discussed. Both advantages and disadvantages of such venture were put forth by several members. No firm conclusion was developed on this matter.

The registration fee of $7.50 was discussed. It was observed that the original basis for establishing a registration fee was for caring for normal cost of materials for publication of the proceedings. Within this context it was moved by Arthur G. Cosby and seconded by several members that the use and disposition of such funds accruin from registration be left with the discretion of the president. The motion carried. Materials for publication of the proceedings is to have priority on monies collected through registration.

Thr Rural Sociologists presented citations for long years of faithful and fruitful service to the following members:

A. Lee Coleman, University of Kentucky
Virlyn A. Boyd, Clemson University (deceased)
Harold F. Kaufman, Mississippi State University (retired)
Alvin L. Bertrand, Louisiana State University (retired)

Presentation of the awards were made by Arthur G. Cosby.

Nomination of officers for FY 1980 was made by Charles L. Cleland, as follows:

President: Edward L. McLean, Clemson University
President-Elect: William C. Boykin Alcorn State University
Program Chairman: Wolfgang Frese, Mississippi State University
Program Chairman-Elect: Gerald Wheelock, Alabama A&M

The nomination was closed by unanimous action of the body.

The retiring Program Chairman, W. C. Boykin, reported that he was gratified by the response of the membership to the call for papers and that he was grateful for the special help rendered by McLean, Cleland and Mookherjee in the performance of his job for the past year.

The retiring president, Mookherjee yielded the chair to the president-elect, McLean. McLean reported that 66 individuals had registered (including 8 students) for a total of $435.00. He opened the house for further registrations at this point. He announced that future meetings will be held as follows:

1980 Hot Springs
1981 Atlanta
1982 Orlando

The president proposed that in the future registration for both SAAS and the Rural Sociology Section could be completed at the Rural Sociology Section booth for all members of Rural Sociology. He indicated that he had made the necessary arrangements with the Secretary-Treasurer of SAAS. This proposal and plan were accepted.

Some discussion centered around quality of papers to be presented, format, abstract, etc. No firm decisions were reached on these matters. However, it was generally agreed that if session chairpersons and discussants could have a copy of papers to be presented and the abstract in a standard format, this would improve the quality of individual Sessions. Generally, the program chairman is instructed by the body to care for these details during the normal course of his work.

There was a general feeling that provisions for holding Technical Committee Meetings during SAAS should be improved through scheduling into the printed program. There was a feeling that, without this provision, these meetings would likely be competitive with regular sessions. Again, the program chairman is instructed to attend to this detail.

The meeting was adjourned at 9:30 p.m.

Harsha Mookherjee, President

William C. Boykin, Recorder

Section 16

Annual Meeting Program, Rural Sociology Section Southern Association of Agricultural Scientists, February 4-7, 1979, New Orleans, Louisiana

ANNUAL MEETING PROGRAM - RURAL SOCIOLOGY SECTION, SOUTHERN ASSOCIATION OF AGRICULTURAL SCIENTISTS, FEBRUARY 4-7, 1979, GRAND HOTEL, NEW ORLEANS, LOUISIANA

METHODOLOGY

Presiding: John Saunders, Department of Rural Sociology, Mississippi State University.

An Exercise in Minimalist Sociology, H. Wayne Hogan, Cookeville, Tennessee.

Research Design for Analysis of Change Over Time: A Review, Charles S. Perry, University of Kentucky.

Measuring County Agricultural Structure, Ronald C. Wimberly, North Carolina State University.

Distribution of Health Personnel and Community Attributes: A Case of Tennessee, Surendra P. Singh, Tennessee State University.

EXTENSION SOCIOLOGY (A)

Presiding: Howard Ladiwig, Texas A&M University.

South Carolina Title V Extension: A Comparison and Evaluation of Two Approaches, Stephen Lilley, Robert Pomeroy and John Rutledge, Clemson University and Nelson L. Jacobs, Texas A&M University.

Risk Taking and Extension Programming. C. L. Taylor and William R. Summerhill, University of Florida.

Applied Research As An Intergral Phase of Community Development Extension, Adrian L. Padgett and Edward L. McLean, Clemson University.

Evaluating County Extension Programs, C. L. Taylor and Emily King, University of Florida.

Discussant:
G. Richard Wetherill, Mississippi State University

EXTENSION SOCIOLOGY (B)

Presiding: Carlton R. Sollie, Mississippi State University

Some Observation On A Program: The Eradication of Cervical Cancer in South Texas, O. Z. White, Trinity University and Richard Domey, University of Texas at San Antonio.

Place of Birth and The Criminal Felony Defendant, John H. Lindquist, Michael Kearl, and Richard Machalek, Trinity University.

Educational Impacts of Rapid Population Growth in Rural Communities, Peggy J. Ross and Bernal Green, USDA-CR.

Powerlessness and Its Effects on Social Participation: Rural Development, E. Y. Beauford, M. E. Walker, Jr. and N. B. Brown Fort Valley State College.

Discussant:
William W. Linder, Mississippi State University

THE SOCIOLOGY OF INCEDIARISM

Presiding: G. Richard Wetherill, Mississippi State University

Role Taking of the Forest Incendarist, Michael Lightsey and Andrew Baird, Mississippi State University.

Evaluating Forest Fire Prevention Programs: A Case Study in the Adequacy of Simple Pre-test Post-test Design, S. Renee Rigsby and Arthur G. Cosby, Texas A&M University and G. Richard Wetherill, Mississippi State University.

Role Performance of Forestry Agency Personnel With Fire Prevention Responsibility, Charles Mercer and Vic James, North Carolina State University.

Discussant:
John Dunkelberger, Auburn University

RURAL HOUSING

Presiding: Melvin Walker, Fort Valley State College

The Influence fo Selected Housing Characteristics On Rural Housing Satisfaction, Evelyn R. Wortham, Texas Technological University.

Reasons for Moving and House Changes Among Blacks in the South and Other Regions, Sam T. Davis, III, University of Georgia.

Characteristics Found Among Claiborne County Household as They Relate to Household Equipment, Alfred Stewart, Alcorn State University.

Discussant:
Pex Boggs, Kentucky State University

REGIONAL PERSPECTIVES IN RURAL DEVELOPMENT

Presiding: William W. Linder, Director, SRDC

Local Communities Need Answers, Hon. Tony Byrne, Mayor of Natchez, Mississippi.

Action Agencies Need Answers, Tom Marshall, FmHA, USDA.

Can Universities Meet the Needs?, Ed Moe, CSRS.

Discussant:
Paul Warner, University of Kentucky

RURAL INSTITUTIONS

Presidnig: Andrew W. Baird, Mississippi State University

Effective Leadership Organization for Rural Community Development, Stephen G. Sapp, Texas A&M University.

Citizen Participation and Involvement: A Common Framework For Cooperative Extension and Community Education, Nelson L. Jacobs and Stephen C. Lilley, Clemson University.

An Examination of Exchange Systems Operating Among Farmers in Rural Georgia, H. Max Miller and Rusty Brooks, University of GA.

Banking Services in Rural and Urbanizing Areas: A Case Study of Institutional Adaptation, Edward L. McLean, Joseph Prinzinger, Barbara Prinzinger, William F. Grazer and Gerald Waddle and Beverly Clouse, Clemson University.

PLENARY SESSION

SOCIAL ORGANIZATION FOR DEVELOPMENT

PRESIDING: Charles L. Cleland, University of Tennessee

OUTLINE OF PANEL PRESENTATIONS

I. Historical Background

II Major Development Since 1950

III. Economic Profile and Changes Since 1950

IV. Local Perceptions of County At Present, Glenn C. McCann, North Carolina State University, Lionell "Bo" Beaulieu, Andy Deseran, Louisiana State University, Calvin Van Landingham, Auburn University.

Resource Persons:
Donald Voth, University of Arkansas
H. Max Miller, University of Georgia
Edward L. McLean, Clemson University
Reninaldo Calero, University of Puerto Rico

COMMUNITY SATISFACTION

Presiding: Lionell J. Beaulieu, University of Florida

Leisure Pursuits and Their Meaning for the Elderly Population, Denise Lemmon and Hanns G. Pieper, University of Evansville.

Health Care Delivery Services in Rural Southeastern Texas, Phillip E. Kithcart, Charles E. Cokes and Thaddeus McDonald, Prairie View A&M University.

Organizational Structure, Supervision, and Job Satisfaction: A Study of Their Interrelationships in a Rural Setting, Rosemarie Skaine and Satish Sharma, Univerisity of Northern Iowa.

Satisfaction With Neighborhood Conditions and Services, By Race and Metro Status, Susan S. Carley, University of Georgia.

Discussant:
Adrian Padgett and Stephen J. Lilley, Clemson University.

ISSUES IN AGRICULTURAL HIGHER EDUCATION

Presiding: Arthur G. Cosby, Texas A&M University

Commitment of Students of Agriculture as an Occupation, John E. Dunkelberger and Terri L. Hayes, Auburn University.

Production Agriculture: An Emerging Occupation Orientation for Women, Thomas A. Lyson, Clemson University.

Backgrounds, Characteristics, and Goals of Agriculture Students: 1890-1962 Comparisons, Dannie Salter and Joseph Molnor, Auburn University.

Discussant:
H. O. Kunkel, Dean, College of Agriculture, Texas A&M University.

AGRICULTURAL EDUCATION INSTUTIONS

Presiding: Frank Howell, Mississippi State University

The Social Origins of Women Majoring in Agriculture: Male-Female Comparisons, Donna M. Rafferty, George W. Ohlendorf and Elizabeth A. Guin, Louisiana State University.

Institutional Context of Agricultural Higher Education: Organization, Curriculum and Enrollment, C. R. Sollie, Wolfgang Freses and Dale Parent, Mississippi State University.

Aspirations to Become A Veterinarian: Antecedents and Correlates, George W. Ohlendorf, Donna M. Rafferty and John F. Goudeau, Louisiana State University.

Discussant:
John W. Oren, Head, Agriculture and Extension Education, Mississippi State University and John Robertson, Associate Dean of Agriculture, University of Kentucky.

RURAL AND URBAN CULTURE

Presiding: James H. Copp, Department of Rural Sociology, Texas A&M University.

Determinants of Life Satisfaction Among The Aged: Rural-Urban Differences, Joseph J. Molnar and Virginia Smith, Auburn University.

Urban-Rural Differences in Citizens Perception of Crime Control An Exploration into Law Enforcement Organization, Deborah S. Anderson, Roberto Hugh Potter, and W. Clinton Terry, University of Florida.

Knowledge, Need and Utilization of Anti-Poverty Programs by the Rural Poor, J. S. Dhillon, Florida A&M University.

Discussant:
Charles W. Peek, Department of Sociology, Texas Tech University

STATUS ATTAINMENT

Presiding: Virginia S. Smith, Auburn University

Marriage Deferment and Achievement of Rural Youth: Comparison of Blacks and Whites, Sue Sanchez and Arthur G. Cosby, Texas A&M University.

Precondition for the Growth and The Growth Orientations Among Public Officials, Richard C. Maurer and James A. Christenson, University of Kentucky.

Modernization and Changing Sex Role Orientations: The Case of Puerto Rico, Elmira Olivia Gilbert, Texas A&M University.

The Effect of Community Attachment on Post-Secondary Educational Choices and Occupational Aspirations, Roger Hecht and Debi Hall, East Tennessee State University.

Discussant:
Frank Howell and Dale Parent, Mississippi State University

OCCUPATIONAL PRESTIGE

Presiding: Harsha Mookherjee, Tennessee Technological University

Southern Adolescent Future Husband's Occupational Aspirations and Attainment, Ella Keller and Wolfgang Frese, Mississippi State University.

Occupational Opportunities, Values and Structure of Agriculture, C. Milton Coughenour, University of Kentucky.

Industrial Invasion, Occupational Change, and Work Satisfaction Among Rural Indigeneous Employees for New Industry, Thomas J. Durant, Jr. and Alma Thornton, Louisiana State University.

Developmental Theory and Contest Mobility: A Reexamination of Ginzberg's Theory, Larry D. Hall, Spring Hill College.

MINORITY AGRICULTURAL ENTERPRISES

Presiding: Robert Boone, Tennessee State University

An Assessment of the Counseling Needs of Rural Black Land Owners in West Tennessee, G. A. Griffith, Tennessee State University.

Stemming the Tide of Black Land Ownership, R. L. Boone, Tennessee State University.

An Analysis of Selected Aspects of the Human Ecology of Sugar Production in Louisiana, Lisandro Perez and Victor M. Rodriguez, Louisiana State University.

SPECIAL 1890 PROJECT

Presiding: Melvin Walker, Fort Valley State College

BUSINESS SESSION

Presiding: Harsha N. Mookherjee, Tennessee Tech University

Participants:
Edward McLean, Clemson University
William C. Boykin, Alcorn State University

COMMUNITY

Presiding: James D. Preston, Professor, Memphis State University, The Colle[illegible]f Arts and Sciences

Powerlessness and Its Effects on Social Participation, E. Y. Beauford, M. E. Walker, Jr. and N. B. Brown, Jr., Fort Valley State College.

Interpersonal Sociometric Networks and Influence Ranking in Two Low-Income Counties in Georgia, H. Max Miller, University of Georgia.

Industrial Invasion, Occupational Change, and Work Satisfaction Among Rural Indigenous Employees of a New Industry, Thomas J. Durant, Jr. And Alma Thornton, Louisiana State University.

Public Participation In Resource and Recreation Management Assumptions and Techniques, Sally R. Purohit, Joseph J. Molnar, and Howard A. Clonts, Auburn University.

POTPOURRI

Presiding: Eddie W. Wynn, Clemson University

County Agents Perceptions of Ideal and Actual Influence on Extension Programs, Kenneth E. Piggs, Extension Socioogist, University of Kentucky.

Some Methodological Problems in Field Research in Rural Areas, Surendra P. Singh, William Dan Bolton, and Sammy L. Comer, Department of Rural Development, Tennessee State University.

The Meaning of Food in an Italian Community of Rural Louisiana, Carolyn Kasprzak Falkowski, Virginia Purtle, Louisiana State University.

Values in a Rural Italian Community, Virginia Purtle, Carolyn Kasprzak Falkowski, Louisiana State University.

Fowl Work and Offal Activities: A Pilot Study of Morale and Disaffection Among Poultry Processing Employees, Clifton D. Bryant and John P. King, Virginia Polytechnic Institute and State University.

Discussant:
Robert Pomeroy and John Rutledge, Clemson University

Section 17

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